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Temperament Constructs Related To Betrayal of Trust

Joseph P. Parker

Martin F. Wiskoff

BDM International, Inc.

Defense Personnel Security Research Center
99 Pacific Street, Building 455-E
Monterey, California 93940-2481

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A literature review was conducted with the aim of defining the temperament constructs that could be related to trust betrayal and identifying a set of existing instruments for measuring these traits. Three constructs thought to exercise some influence on acts of espionage were identified: lack of self-control, risk-taking, and a sense of alienation. Studies in white-collar crime using temperament, biodata, and integrity instruments provided empirical evidence for the use of such tests in identifying potential betrayers within organizations. It is argued that white-collar crimes such as embezzlement may be used as surrogates in the study of espionage. The impact that other factors such as prior self-justifications and occupational norms have on trust betrayal is discussed within a motivational framework. Future research is proposed.

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Joseph P. Parker
Martin F. Wiskoff
BDM International, Inc.

December 1991

Defense Personnel Security Research Center
99 Pacific Street, Building 455-E
Monterey, California 93940-2481

Preface

The current personnel security system relies heavily on a pre-clearance background investigation and continuing evaluation procedures that include ongoing monitoring and periodic reinvestigations. This system focuses primarily on identifying "life events" that may indicate that a person is not trustworthy or reliable and, therefore, should not be given access to classified information.

The system has evolved, however, without any clear understanding of those individual and situational factors that may predispose certain cleared individuals to commit espionage. In particular, we lack a theoretical framework for approaching this issue.

The current report is the first effort in a longer-range research program to develop such a framework for examining situational, position, and personality or temperament variables that are related to committing espionage. It addresses a construct, trust betrayal, within which espionage is a subset. Espionage represents violation of a fundamental trust between individuals and their organization and country. Thus, the research literature on significant trust violations has relevance to understanding the personality dynamics behind espionage.

Other ongoing projects in this research program include (a) identifying position variables, independent of the cleared individual, that increase the vulnerability of the position to espionage and (b) developing a database of unclassified information on all U.S. citizens who have committed espionage since 1945.

Future research within the trust betrayal area will seek to apply the initial findings of these investigations in the development of improved screening and continuing evaluation procedures, and instruments that could help to reduce the probability of espionage. Efforts addressing individual predispositions to espionage, combined with work on position vulnerability and analyses of the characteristics of U.S. spies, will begin to bring together a model of espionage that considers both situational and individual factors.

Roger P. Denk
Director

TEMPERAMENT CONSTRUCTS RELATED TO BETRAYAL OF TRUST

Summary

Joseph P. Parker
Martin F. Wiskoff

Problem and Background

Efforts by foreign nations to obtain valuable U. S. secrets are expected to continue despite recent dramatic changes in the geopolitical situation. The screening of personnel entering high-security occupations and the continuing assessment of cleared personnel constitute important safeguards against espionage. The personnel security system relies heavily on individual background information in judging the suitability of persons for positions of trust. While life history events may be relevant to basic security violations, they cannot serve as a theoretical framework for describing the underlying personality traits that may distinguish a potential spy from other loyal personnel.

Objectives/Approach

The primary objectives of this study were to: (a) define the temperament/ personality constructs that could be related to the act of trust betrayal; (b) identify a potential set of existing instruments for measuring these constructs; and (c) develop a plan for conducting additional research to empirically examine the relationship between these constructs and trust betrayal. These objectives were accomplished by conducting a literature review and consulting with experts from various academic areas.

Literature Review

The trust literature is dominated by sociological and organizational approaches which regard explanations of trust betrayal at a purely individual level as incomplete and inaccurate. Psychological investigations using trait measurement instruments have detailed some constructs that may be related to trust betrayal at an interpersonal level, but an interpersonal model was found inappropriate for explanations of trust violations such as espionage which occur in an occupational setting.

The white-collar crime literature provided a wealth of research and theory that was found particularly suitable for describing offenses involving major violations of trust. White-collar crimes were found to be similar to espionage in several respects. Studies in white-collar crime using psychometric instruments provided some empirical evidence for the use of such tests in identifying potential trust betrayers within organizations. This research also identified several specific constructs that may contribute to individual tendencies to commit crimes involving a violation of trust.

The literature that focused on espionage was characterized by three distinct approaches: (a) a body of non-academic literature that provided some broad characterizations of spies and their motivations, often relating them to values within society; (b) attempts to explain espionage from a more sociological perspective that alluded to the importance of the offender's rationalization process and described situational influences on espionage that may be more important than factors of personality; and (c) psychometric approaches that have focused on the profiling of personalities that may be at risk for betrayal, using motivation to differentiate among major types of spies.

Findings

The major findings are: (a) a better understanding of espionage would probably result from research on acts of betrayal within an organizational context, rather than acts of interpersonal betrayal; (b) money, resentment/revenge, and ideology are considered the three most important motivations for espionage, and the significance of ideology is thought to be lessening; (c) insight into the relationship between motivation and espionage may be obtained through a better understanding of the individual's prior self-justifications for such betrayal; (d) informal occupational norms have a demonstrated effect on the incidence of workplace crime, and measurement of these workplace attitudes should be included in any empirical design to predict trust betrayal; (e) integrity tests have demonstrated an ability to distinguish between occupational offenders and non-offenders, even though the underlying structures of these tests are not well understood; (f) reasonable consensus has been reached concerning three constructs thought to exercise some influence on espionage: lack of self-control, risk-taking, and a sense of alienation; (g) espionage shares much in common with many white-collar crimes, and in many respects most closely resembles embezzlement; (h) the California Psychological Inventory (CPI) may be considered one of the premier temperament instruments available for the prediction of occupational offenses, and specific scales of the CPI including Socialization, Responsibility, Self-Control, Tolerance, and Achievement Via Conformance have demonstrated repeatedly an ability to distinguish between offenders and non-offenders in a variety of settings; and (i) recent research has shown that temperament, biodata, and integrity instruments may all contribute to an empirical model that discriminates between white-collar trust violators and a control group of normal employees.

Future Research

The next stage of research should attempt to validate the most promising constructs that have been found related to trust betrayal, using temperament, biodata, and honesty/integrity instruments in a personnel security setting. There are two approaches that would be appropriate: (a) conduct longitudinal analyses on data from such instruments that have already been collected; and (b) initiate the administration of promising instruments in operational settings in order to collect experimental data.

Of the temperament instruments available, the CPI has perhaps the firmest theoretical and empirical base in assessing common and white-collar criminal behavior. Given the wealth of data available from its 35 years of administration, the CPI would be an ideal instrument for conducting longitudinal analyses. Three examples of potential CPI studies are:

1. Collins' (1991) database of white collar criminals could be used to study whether it is possible to differentiate psychometrically among white-collar offenders, given our assertion that embezzlers most closely resemble spies.

2. The Department of Justice is planning to initiate a 25-year follow-up of approximately 3,500 law violators who were tested with the CPI when they were about 21 to 25 years of age. It would be valuable to participate in the study to understand better the dynamics of personality change in a population of relevance to espionage.

3. The CPI has been administered over a period of years to applicants at one or more intelligence/security agencies. The relationship that CPI scale scores may have to negative behaviors within a high-security environment might be assessed by analyses of these data.

The second approach would involve collecting data on personnel already in military and intelligence agencies. A battery of tests, including the CPI, the Personnel Decisions Inc. (PDI) Employment Inventory and the Biographical Questionnaire, would be candidates for administration. Potential populations to whom the instruments could be administered include:

1. Applicants to intelligence/security agencies, along with those employees who already hold security clearances, so that normative statistics concerning both groups could be obtained. This would allow for longitudinal analyses in conjunction with other predictor and criterion data routinely obtained by such agencies.

2. Enlisted applicants who are being considered for occupations requiring Top Secret or Special Compartmentalized Information access. Obtaining

personality data on this population would enable the development of linkages between screening instruments, adjudication criteria, clearance decisions, and the constructs measured by the battery of tests.

3. Military offenders either in military prisons or those being discharged for reasons of unsuitability. This would permit assessment of the battery constructs on a group of individuals who have committed violations of military and civil regulations.

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Introduction

Problem and Background

Reported cases of espionage by cleared U. S. personnel increased dramatically during the 1980s. The threat to our national security from the Soviet Union and Eastern European countries seems to have diminished in the 1990s with the dismantling of communist governments in these countries. Nevertheless, efforts to obtain valuable U. S. secrets by many nations, even those thought to be friendly, will undoubtedly continue.

One of the most important elements in the national security process is the screening of personnel entering sensitive or high-security occupations and the periodic reinvestigation of cleared individuals. The existing personnel security system relies heavily on background information, such as important life events, in making decisions about the suitability of individuals for such positions.

This system has established issues on which individuals seeking to obtain or maintain clearance are assessed. While the existing system has merit, it tends to focus on life history events such as law violations, financial problems, and drug or alcohol abuse. These may be more relevant to basic security violations and inadvertent compromise than to the deliberate compromise of classified information through espionage. This limitation is partially due to the lack of a clear understanding of those factors that may predispose certain cleared individuals to commit espionage. No theoretical framework for approaching this issue has been developed.

There have been a number of efforts to describe individuals who have committed espionage, including current research to develop a database of Americans who spied against the U. S. since World War II (Wood & Wiskoff, in press). But there has been relatively little research to develop a theoretical framework for interpreting the underlying dynamics of the behavior of spies.

Objectives and Approach

The primary objectives of this study were to: (a) define the temperament and personality constructs that could be related to the act of trust betrayal; (b) identify a potential set of existing instruments for measuring the constructs identified above; and (c) develop a plan for conducting additional research to examine empirically the relationship between identified constructs and trust betrayal. Completion of the first two objectives involved a detailed review of the personality assessment literature as approached by the disciplines of psychology, sociology, and criminology. Opinions from experts in the various fields were also solicited, and a seminar was held July 22-23, 1991, to share some of the insights of these recognized authorities. The third objective was approached by

evaluating the literature review findings and deriving potential research projects that could advance the state of knowledge concerning trust betrayal.

Organization of the Report

This report is organized into six sections. The remainder of this section details how the literature search was conducted, provides a definition of terms, and identifies the relevant areas of the literature. The second section reviews concepts of trust betrayal as approached by the literatures of psychology and sociology in which discussions of the phenomenon of trust have traditionally taken place. The third section approaches trust betrayal as a behavior, and examines many offenses that have not been researched from a trust perspective; the criminological literature is well represented here. In the fourth section, the focus is on espionage itself, and research efforts to describe and better understand the nature of the crime. The fifth section presents a summary of the temperament constructs that have been related to espionage, white-collar crimes, employee theft, and other offenses. The final portion of the report offers a plan for future research to enhance our understanding of the relationship of trust betrayal to espionage.

Literature Review Methodology

A thorough search of the literature was accomplished using several different methods. Dialog®, an online information retrieval service that uses a key word searching strategy, was first used to identify literatures of interest. The service accesses nearly 300 million records in 350 subject databases, and 15 of the databases, such as Psychological Abstracts, Social Science Info, Legal Resource Index, and Dissertation Abstracts, were found appropriate. Library of Congress entries under headings such as "trust (psychology)" were also obtained. Silver-Platter®, an information retrieval service available on microcomputers for searching sociological and psychological journal abstracts, was employed for more detailed and complex searches. In addition, recent volumes of sociological, psychological, and criminological journal abstracts were consulted, since the most recently published literature does not always appear in automated databases.

Definition of Terms

The subject of trust, its conceptualization, and definition have been dealt with extensively in the literature of twentieth century social sciences. Many prominent psychologists of the 1900s have made substantial contributions to our understanding of trust. The topic has been less discussed in the literatures of sociology and criminology, but significant works have also been published in these fields. A number of different

definitions of trust have been presented in the literature, varying significantly in specificity and content. For example, Deutsch (1958) operationalized the term to refer to "expectations with regard to an event whose occurrence is not detrimental to the individual" and likened trusting behavior to risk-taking in a "prisoner's dilemma" game. A more commonly accepted definition would be that provided by Rotter (1967, p. 651): "an expectancy held by an individual or a group that the word, promise, verbal, or written statement of another individual or group can be relied upon."

The term *trust betrayal*, however, does not represent a recognized area of research in any of the aforementioned disciplines, and the phenomenon has not received much attention as a separate subject area. In fact, most of the processes, components, and antecedents of trust betrayal are discussed as part of the trust literature. Of course, the behaviors of which trust betrayal forms an integral part (infidelity, embezzlement, fraud, etc.) are numerous, and many have been studied in psychological, sociological, and criminological terms.

The expression *trust betrayal* in its general usage conveys a number of important ideas that require clarification and amplification in relating the term to espionage. Most importantly, the term implies the existence of a bond of trust between an individual and another party prior to the act of betrayal. An oath or promise must be broken in order for betrayal to take place. In addition, a demonstration of trustworthiness on the part of the individual is generally required before such a trust can be conferred. As such, trust violations between strangers or between an individual and organization with no mutual bonds are not possible in our conceptualization.

Concerning espionage, the bond of trust is recognized to exist between an individual and a larger entity. This larger entity may be regarded as the specific governmental agency for which the individual works but can be extended to include concepts of nation and country. In this sense, then, betrayal of trust between individuals is conceptually distinct from our definition. However, as King (1989) notes, if you betray your country, "you will probably end up betraying your friend, your friend's friend, your wife, your children, and everyone else in sight" (p. 47). Because the commission of espionage probably involves a certain amount of trust betrayal at an interpersonal level, consideration of research in interpersonal trust betrayal is also warranted.

For the purposes of this review, then, trust may be defined as an expectancy held by representatives of a superordinate entity that the word (written or verbal) of an individual can be relied upon, especially promises that the individual will not undertake any actions that may tend to weaken or put the entity at risk. Betrayal of such trust would entail the intentional commission of actions contrary to that covenant.

Relevant Areas of Research

Very little research specific to the investigation at hand—temperament and personality constructs related to espionage—exists in the literatures of psychology, sociology, or criminology. Most of the literature directly related to espionage is either historical, fictional, biographical, or political in nature. This is not surprising since espionage is an infrequent behavior and is not amenable to most social science research techniques. Also, much of the data concerning our nation's spies is shrouded in secrecy and subject to interpretation. Discussion of other deviant and criminal behaviors in terms of temperament and personality constructs is also limited, most commonly found in the psychometric or personality trait literature, but the measurement techniques used in these fields are also employed in the other social sciences. Because of the limited scholarship that specifically addresses personality traits and espionage, this review will embrace a wider approach to the study of trust betrayal, including the literature related to offenses in which betrayal of trust, in an egregious form, is a central part of the behavior.

The Trust Literature

Interpersonal Trust

The terms *trust* and *betrayal* occur most commonly in psychological research concerning interpersonal development and relations, which often centers on clinical experiences with groups and pairs. Clinician-patient relationships, as well as romantic and sexual relationships involving a violation of trust, are frequently explored in terms of betrayal. However, this literature of human interaction and relationships may have less relevance to the study of espionage than its frequent usage of some key terms imply. Violation of interpersonal trust is a fairly common event, while espionage is a crime rare in occurrence. Research in the area of interpersonal trust does not often discriminate between legal and illegal acts but generally stresses the ethical nature of acts of betrayal.

Trait Theory Research

Research on interpersonal trust has generally centered around two distinct conceptualizations of trust. The trait theory approach attempts to reduce trust to its cognitive content and conceives of it "as a construct or trait that individuals develop in varying degrees, depending on their personal experiences and prior socialization" (Lewis & Weigart, 1985, p. 975). In this context, psychometric scaling techniques are used to measure trust in individuals and their scale scores are correlated with other personal attributes or behaviors. The Rotter Interpersonal Trust Scale (ITS) (Rotter, 1967) is the best-known and most-reported measure in this field, but other measures such as Roberts' (1971) Peer Trust Scale and Jones' (1988a) Interpersonal Betrayal Scale also exist. Interpersonal trust, in the context of social learning theory, has been defined by Rotter as "a generalized expectancy held by an individual that the word, promise, oral or written statement of another individual or group can be relied on" (Rotter, 1967). This general definition, with some variation, has often been used by researchers reporting their studies in the literature.

Research with Rotter's instrument in various settings has shown low trusters to be less trustworthy than high trusters and demonstrated that their promises cannot be relied upon (Wright & Kirmani, 1977). Female high school students who score low on the trust scale have also self-reported significantly more shoplifting than high scorers (Wright & Kirmani, 1977). The ability of Rotter's Trust scale to validly distinguish between delinquents and nondelinquents is not universally acknowledged. In fact, such claims by Rotter and other researchers have been disputed by Austrin and Boever (1977) and Fitzgerald, Pasewark, and Noah (1970). Austrin and Boever's research involved both Rotter's and Roberts' (1971) measures, and they concluded that the general belief that delinquents are significantly less trusting than normal adolescents was unfounded.

Multidimensionality of Trust. Questions concerning the multidimensionality of trust have also been addressed using the ITS. Several different factor analyses of the scale have provided 3 to 4 orthogonal factors (Kaplan, 1973; Chun & Campbell, 1974; Wright & Tedeschi, 1975; Hunt, Cohn & Malozzi, 1983). In the largest study involving 3,633 undergraduates, Wright and Tedeschi identified and cross-validated three factors which they labelled Political Trust (cynicism toward media and government), Paternal Trust (trustworthiness of benign authorities), and Trust of Strangers (need to be cautious of others). Corazzini (1977) included two other paper-and-pencil measures of trust along with the ITS in an exploratory factor analysis that produced four factors: suspicion-trust, risk-taking, gambling, and cynicism. While these findings support the idea of interpersonal trust as a multidimensional phenomenon, there has been no final agreement on the number or content of the underlying factors involved.

Interpersonal Betrayal. Jones (1988a) has recently developed the Interpersonal Betrayal Scale (IBS) in an effort to gain a better understanding of the personal characteristics of those who betray. Its subscales are intriguingly named spy, mole, and terrorist, though the labels are more a product of the author's interest in the spy novel than a serious attempt to characterize espionage agents and terrorists. Montgomery and Brown (1989) and Montgomery, Brown and Haemmerlie (1990) have reported on two administrations of the IBS in conjunction with the California Psychological Inventory (CPI) in which the content of the IBS was explored. Overall, their results suggest that persons who score high on the IBS lack self-control (as measured by CPI scales Responsibility, Socialization, Self-Control, Good Impression, Well-Being) and self-realization (CPI scale Achievement via Conformity). Montgomery et al. also described low scorers on their betrayal scale in terms of Gough's (1987) Type/Level model of personality. They found that those who betrayed were likely to be norm-questioning (Deltas and Gammas) and poorly integrated (Vector 3 scale). They conclude that "we should expect people who betray to be poorly integrated Gammas or Deltas (norm questioning) lacking self-control" (p. 5).

Hogan (Hogan & Hogan, 1991) has also attempted to capture the correlates of interpersonal trust betrayal, using the Hogan Personality Inventory (HPI: Hogan, 1986) and Jones' PROFILE (Jones, 1988b). He theorizes that the ideal betrayer will possess four basic attributes: "charming, attractive, and ingratiating; egocentric and manipulative; self-deceived; and underlying these characteristics is the hollow core syndrome" (p. 11). The hollow core syndrome refers to people Hogan has observed in his assessments who were overtly charming and socially poised, but who privately were unhappy and doubting of their self-worth.

In support of his ideas, he gathered data on 55 managers at a transportation company by asking subordinates and their superiors to evaluate the managers using an appraisal form and ratings of trustworthiness. Managers completed the HPI and the PROFILE. Their scores on these instruments were then correlated with a composite

peer rating of trustworthiness. The least-trusted managers were shown, by virtue of individual scale correlations, to be self-confident and arrogant, impulsive, overtly conforming, and possibly self-deceived. They also showed signs of the hollow core syndrome. While the data seem to support Hogan's ideas, the small number of individuals in the study, along with the presumption that evaluations of managerial trustworthiness can be used to characterize the personality of trust betrayers, do not provide a firm basis to support his general theory.

Trust Games Research

Another important conceptualization of interpersonal trust is represented by the work of behavioral psychologists who have studied trusting behavior in laboratory experiments, often in the context of non-zero-sum or prisoner's dilemma (PD) games. Deutsch's work figures most prominently in the field and characterizes the experimentalist approach fairly well. In one commonly cited experiment, Deutsch (1958) found "a very striking relationship between 'trusting' and 'trustworthiness'" (p. 278). People who were trusting when faced with difficult choices were found to be trustworthy in other situations—even when they had nothing to gain. Another contribution from PD games research is the observation that "cooperation in the PD game increases when players are able to communicate their expectations to each other and when players carry through on their threats and promises" (Lewis & Weigart, 1985, p. 975).

A series of penetrating criticisms of this research, with particular relevance to our definition of trust betrayal, has been offered by Lewis and Weigart (1985). They argue that these researchers appear to be investigating the processes by which strangers brought together in an experimental situation "come to formulate and act on predictions about the behavior of others" (p. 976). While trust may at times resemble prediction, for both may serve to reduce complexity in decision-making, prediction clearly fails as a functional equivalent for trust. The reduction of trust to a cognitive state, presumably measured by cooperative behavior, ignores the emotional qualities of trust, and also ignores the fact that trusting behavior may be feigned: game behaviorists have concentrated on overt behavior, which may arise from calculated prediction, hope, faith, a whim, or a number of psychological states.

Sociological Concepts of Trust

Luhmann (1979) has noted, and the authors would agree, that there is a "sparse literature which has trust as its main theme in sociology" (p. 8). While a few recent treatments of the topic have been well received in the field (Barber, 1983; Luhmann, 1979), they have not as yet served as theoretical platforms from which new fields of inquiry have been launched. One of the main theoretical insights provided by Luhmann's work is that "trust cannot be fully understood and studied exclusively on either the

psychological or institutional level because it so thoroughly permeates both (Lewis & Weigert, 1985, p. 974). Both Luhmann and Barber's observations on trust stress its irreducible nature as a multi-dimensional social reality, which precludes empirical investigation of their contentions. Proponents of a sociological perspective on trust have little faith in psychological approaches that attempt to reduce trust to a psychological event or measurable entity within the individual. Research by behavioral psychologists and trait measurement theorists is roundly criticized for ignoring the situational and emotional dimensions of trust they do not attempt to investigate.

There are some conceptions of trust founded on these sociological observations that merit attention. System trust, for example, relates to our trust in the functioning of bureaucracy and safeguards for our well-being provided by legal institutions (Luhmann, 1979). It is similar to notions of public and institutional trust, without which, as Parsons (1967) has remarked, our confidence in the cultural symbols of the social systems and their legitimacy would disintegrate. The interrelatedness between system trust and interpersonal trust has been noted by Durkheim (1933), who predicted a loss of trust in others as institutions erode, because these same institutions underwrite much of the interpersonal trust in evidence every day.

Impersonal trust is related to Weberian (Weber, 1947) notions of the relationship between organization and member. It is the trust conferred when an institution hires a new member. The trust relationship exists between the individual and the impersonal web of authority and bureaucratic law which embody the organization. It is this type of impersonal trust that exists between an individual cleared for work with classified materials and the entity that granted the security clearance. Apparently because this relationship is contractual and explicit, little research in the social sciences has thoroughly investigated it.

Shapiro (1987) offers a similar conception of impersonal trust as related to the commercial and professional world. Trust is explained as a "social relationship in which principals ... invest resources, authority, or responsibility in another to act on their behalf for some uncertain future return" (p. 626). She explains that specialization in society has increased our need to depend on strangers who provide expertise and mediation, usually by means of contractual agreement, between us and larger networks and institutions. Fiduciary relationships are examples of impersonal trust relationships, and the opportunities for abuse within these relationships are numerous, as Shapiro points out.

The above discussion illustrates some contemporary conceptualizing on trust from a sociological perspective. Its relevance to our definition of trust and betrayal is probably limited, but it does provide a context for some of our subsequent observations and introduces organizational ideas and terminology into our discussion. One striking omission found in the literature is discussion, beyond Weberian notions, of the trust that is conferred on individuals by institutions. Much of the literature has commented on the process by which individuals put trust in agents, institutions, and government, but no

theoretical framework has been provided for looking at the converse, and it is that perspective on the trust relationship that propels this inquiry.

Organizational Literature on Trust

Organizational influences on trust-related behavior in business and government have received substantial attention in recent years. In view of the criticism that psychological conceptions often discount important situational influences, it is prudent to look to the organizational literature for possible explanations of workplace influences on trust violation.

Organizational Commitment

The construct of organizational commitment, usually operationalized as a paper and pencil instrument such as the Organizational Commitment Questionnaire (OCQ; Porter, Steers, Mowday & Boulian, 1974) has most commonly been used to relate individual attitudes with behavior in the corporate environment. Other organizational influences, such as work-place norms and formal regulations, have also been used to help explain employee actions and attitudes.

Organizational commitment, as detailed in Porter and Smith (1970) and Mowday, Steers, and Porter (1979), has been shown to be a predictor of behavioral outcomes such as performance, absenteeism, and turnover (Morris & Sherman, 1981; Mowday, Porter & Steers, 1982). This psychological approach portrays commitment as involving the internalization of the organization's values, along with a strong desire to stay within the organization and see its goals realized. This contrasts with an exchange approach to commitment (Becker, 1960), which views commitment as "the degree to which the member is hesitant to leave the organization for employment elsewhere" (Morris & Sherman, 1981, p. 514). Etzioni (1961) uses the term *calculative involvement* to describe the low-intensity relationship tapped by exchange commitment measures.

The obvious importance of commitment in an active, positive form within the organization has prompted investigations into the antecedents of commitment and how they contribute to its intensity or lack thereof. Steers (1977) proposed that the antecedents of organizational commitment could be represented in three different categories: personal characteristics of individuals, role-related characteristics, and work experiences. Attempts to operationalize specific variables representing these categories to predict individual commitment levels have had mixed success (Morris & Sherman, 1981; Weiner, 1982; Flynn & Solomon, 1985). Most have provided evidence for the utility of Steer's theoretical framework and have produced statistically significant relations between some variables and commitment level.

Organizations and Personal Betrayal

The authors are not aware of any studies that have explored empirically the relationship between commitment and trust betrayal within organizations. However, Morris and Moberg (in press) have proposed a prototype of personal betrayal within the work organization that may relate to organizationally mandated outcomes (profit, obtaining new business, etc.), along with personally consequential outcomes (promotions, getting fired, etc). They discuss three work conditions that increase the need for personal trust: "ambiguous or dynamic tasks; difficulty in observing actual task conduct; and outcomes that are hard to assess" (p. 5). They also contend that the more external controls in place at work (written job descriptions, rules, policies), the less need for interpersonal trust, though the desirability of such a situation is questionable. Likewise, they suggest that the need for informal controls (personal commitments to group and organization's goals) will be highest in those situations requiring a great deal of personal trust. The authors' work is exploratory in nature and in their conclusion they acknowledge the difficulties facing researchers trying to meld betrayal of trust research with the organizational environment.

Organizational Explanations of Trust Violations

Organizational theory encompasses a much broader area of research than that represented above, and organizational interpretations of occupational offenses such as trade secret theft, insider trading, and employee theft, though not common, have been presented in the literature. Studies in occupational crimes will be dealt with more extensively in the section on offenses involving trust betrayal, but a few studies that directly relate organizational perspectives will be reviewed here.

Ogata (1984) has used an organizational resource-dependence model to explain an organization's involvement in industrial espionage. He holds that trade secrets are resources upon which competing corporations depend, and recruitment of competitors' employees for espionage is simply an efficient way of gathering market information. He contends that "espionage should be looked upon as performing an important organizational function which is vital to the survival and goal achievement of the organization" (p. 27). He claims that traditional explanations of spying in terms of individual behavior (i.e., the motives of spies) completely disregard the relationship organizations have with their physical and social environment. Ogata's views on industrial espionage are representative of an area of organizational study that completely ignores the individual as an actor or offender.

Reichman (1989), in discussing organizational influences on insider trading within the investment banking community, suggests that an important predictor of trust violation may be the mix of formal and informal controls in place, given varying states of occupational role stability. She explains that opportunities to engage in insider trading

coexist with normal business practices, so on-going measures of control are imperative. When these mechanisms of control lag or are non-existent (i.e., introduction of a new computerized trading system or a new source of financial information), the only thing that may deter greedy individuals from violating the law is a lack of rationalizations to justify the conduct.

Cultural justifications for trust violations are also more likely to develop, according to Reichman, when role ambiguity increases and occupational controls are weak. She explains that the role of investment bankers has changed from that of passive client counselors to a new entrepreneurial ethos, and this new culture has been "increasingly supportive of behavior on the edge, and beyond" (p. 197). The introduction of cultural and technical innovations which challenge existing formal and informal social controls tends to result in even greater toleration for deviant role performance. Traditional regulatory restraints begin to lose their meaning as new opportunity structures develop. It is in this environment that justifications develop which precipitate violations.

Hollinger and Clark (1982) explained employee theft from a social control paradigm, using an empirical approach. They compared the effect of formal sanctions (corporate and criminal law) and informal sanctions (co-worker reactions) in constraining deviant behavior by employees in the retail, electronics, and health industries. They concluded that "employee behavior seems to be constrained more by the anticipated reaction to deviance by one's fellow co-workers than the threatened formal reaction on the part of management" (p. 340). This finding implies that much counterproductive behavior may be deterred by the perception that an individual's co-workers would condemn such deviance.

Braithwaite (1989) expounds on the argument concerning the effects of anticipatory shame on crime. His central thesis is that social disapproval or *shaming* has a strong controlling effect on individual tendencies to commit offenses. In applying his general theory to the world of corporate crime, he notes that an organization's disciplinary policies should resemble family socialization practices in order to achieve maximum compliance by workers with organizational goals. He claims that the most successful organizations will use shame to internalize employees' commitment to rules and regulations. In this manner, they may secure compliance by expressing disapproval while maintaining ongoing social relationships.

While much more research in the field of organizations could be reviewed, the relevance of the literature cited so far lies in its insistence on consideration of social contextual factors—both within the workplace and within the milieu in which organizations operate—as a source of influence on trust violations.

Moral Development

Espionage as a criminal act is clearly defined and its punishment detailed in the Espionage Act of 1917, but it is rarely discussed in criminological terms. (See Sarbin, 1991, for the exception.) Instead, espionage is commonly discussed with reference to terms such as absence of patriotism, disloyalty to country, duplicity and moral vacuum. For spies who are not ideologically motivated, it may be argued that a complete lack of morality or social concern accompanies their actions. In order for spies to be successful in maintaining outward appearances of normalcy, they must also practice continual deceit with those closest to them. These observations that point to a lack of moral maturity or immorality on the part of the spy may lead us to ask questions concerning the processes of moral development and the cognitive processes associated with ethical behavior, and how they might relate to the decision to betray one's country.

Moral Stages

Sixty years ago the Swiss psychologist Piaget (1932) pioneered the study of cognitive and moral development in children. His stage theory of cognitive development has been adapted by Kohlberg (1969, 1976) to the development of morality in the general populace. Kohlberg posits a sequence of six possible stages of moral functioning, divided into three major levels containing two stages each. Each of these possible stages is characterized by a distinct framework of ethical thinking. Life experiences and some institutional influences are thought to arrest or encourage movement through these moral stages (Kohlberg, 1969). The existence of a relationship between moral judgment and action is an implicit assumption in his work and that of others who have followed (Jennings, Kilkenny & Kohlberg, 1983).

As applied to crime and delinquency, moral development theory asserts that many criminals break the law because they suffer from an arrested moral development; most are thought to operate at the "preconventional level" characteristic of children age 9-11. "At this level the moral rules and values of society are understood as "do's" and "don'ts" associated with punishment" (Jennings et al., 1983, p. 282). Kohlberg developed a relatively complex scoring methodology for assigning stages to individuals. Instruments have been developed by Rest (1979), Gibbs and Widaman (1982), and others to accomplish the same task in a less obtrusive manner.

Empirical Research in Moral Stages

In a thorough review of 13 empirical studies relating moral judgment measures to delinquency and its behavioral subtypes (Jennings et al., 1983), it was concluded that there was a significant, though indirect, relationship between moral judgment and moral action. Mischel and Mischel (1976) noted that the predictive validity from moral stages

to moral behavior has been modest (.30 average), though often statistically significant. In an attempt to use levels of moral reasoning to distinguish among different types of criminal behavior, Thornton and Reid (1982) were able to distinguish among groups of "prudent" and "imprudent" offenders by their assigned moral stage. They added, however, that some inconsistencies in their findings might be explained by situational forces simply overwhelming an individual's moral commitment. Some interesting and testable implications of Kohlbergian theory are that people do not regress in terms of their moral development and that persons functioning at higher levels of moral reasoning would be incapable of many unethical acts.

The link between moral behavior and self-control has been drawn by Mischel and Mischel (1976). They note that a great deal of self-regulation will be required to go from moral thought to moral conduct when strong temptations and situational pressures are present. This point will be made even more relevant in our subsequent discussions of criminal theory.

An interesting application of Kohlberg's model to the problem of ideological trust violations has been provided by Hogan and Jones (in press). They note that individuals functioning at stage 6, the highest level of moral reasoning, will defy the law and conventional morality if their conscience requires it. They cite Lifton's (1983) attempt to evaluate the personalities of individuals who might break the law because of their personal vision of morality. Lifton found these people to be highly intelligent, but unhappy and disputatious. Hogan and Jones go on to describe in detail the personality traits of ideological offenders in terms of various constructs, but their central point is that these individuals are easily identifiable because they tend to take public stands and call attention to themselves and, therefore, pose little threat.

Kohlbergian theory has been criticized on many fronts and does not figure as prominently in the literature as it once did. The approach has been criticized for ignoring "the fact that criminal laws—by which crimes and hence criminals are defined—are the product of a highly imperfect and sociopolitical process" (Haney, 1983, p. 111). As such, moral development psychologists have been accused of taking the value-laden norms of society and applying them as objective measures of morality, with total disregard for social context or the views of other than the educated middle- and upper-class. Some researchers have found that persons invoke different stages of moral reasoning when dealing with different moral dilemmas in different situations (Mischel & Mischel, 1976). And like many attempts to explain crime in terms of the personality or disposition of the actor, moral stage theory has been criticized for its tendency to discount powerful situational forces over which the individual has virtually no control (Haney, 1983).

The relevance of moral development to trust betrayal has not been extensively developed in the literature, nor have moral stages been related to personality constructs except in a few instances (Lifton, 1983; Wilson, 1983). But it seems common sense that

the moral functioning of a spy would not be similar to that of most people. Future research may establish a firmer relationship between temperament constructs, moral reasoning, and behavior, but presently there appears to be little interest in pursuing those goals.

Trust Betrayal as Behavior

Offenses Involving Trust Betrayal

Some of the behaviors involving betrayal of trust at an interpersonal level (lying, promiscuity, etc.) have already been mentioned. Trade secret theft, insider trading violations, and employee theft were also mentioned briefly in relation to an organizational perspective on trust violations. However, many of the offenses that have as their central element an egregious form of trust betrayal, such a embezzlement and other occupational crimes, have not been examined from the trust literature perspective. Most of these behaviors have been explored through psychological, sociological, and criminological approaches to deviance and crime, an area of considerable breadth with a long history of scholarship.

Since this review seeks only to investigate personality and temperament constructs related to trust betrayal, not all theories of crime causation and deviant behavior need to be explored. In fact, most personality-based approaches to explaining deviance borrow heavily from psychological theories of personality and deviance. Yet not all relevant research in trust betrayal will be found in the field of psychology, for many of the behaviors of greatest interest have been investigated in criminological and sociological studies of white-collar crime.

Before reviewing the white-collar crime literature, it may prove instructive to define some characteristics of the act of espionage so that its relationship or resemblance to other behaviors may be assessed in an informal manner. Five primary characteristics to be noted are: (a) espionage against one's country is a criminal act vigorously condemned by most elements of society, (b) the violation of trust is generally initiated by an individual employee and the espionage activity most often occurs within the organizational setting, (c) most persons who commit espionage have had to demonstrate their trustworthiness before employment or promotion to a position of trust, (d) most spies did not begin their occupations with the intent to commit espionage, and (e) the primary motivations in recent years for espionage have been monetary, though disgruntlement/revenge, ideology, and other motivations have also been mentioned (Brown, 1988; Jepson, 1987; Wood & Wiskoff, in press). In addition, it has been proposed (Geis, 1991; Scheibe,1991; Sarbin, 1991) that most spies have had to rationalize their conduct so that they could preserve their self-image as honorable, uncorrupted men and women.

Other characteristics might also be mentioned, but the above description succeeds in capturing some primary elements. It also serves to highlight the similarities between espionage and most white-collar crime. Across all the characteristics listed above, with slight variation, the same might be said of embezzlement, trade secret theft, and certain securities-related crimes.

White-Collar Crime

The White-Collar Crime Research Tradition

The term *white-collar crime* originated with Sutherland (1940) and his classic work in which the theory of differential association was elucidated. Though his theory, developed over the years with substantial help from Cressey (1955, 1964), has become much more complex, its essential premises remain the same. The theory, simply stated, claims that the more opportunity one has to associate with criminals and learn their techniques, motives and rationalizations, the greater likelihood there is that one will engage in criminal activities. That is, criminal activities will become attractive when the favorable definitions for crime outweigh the unfavorable ones. Differential association theory has received considerable criticism in the last 20 years, and some critiques (e.g., Kornhauser, 1978) have been particularly damaging. Researchers (Geis, 1991; Conklin, 1977) have pointed out that most attempts to operationalize it have failed, and it is broadly claimed that the theory cannot be tested empirically (Gibbs, 1987; Hirschi, 1969). Nonetheless, recent works by Matsueda (1988) and Reinarman and Fagan (1988) have provided support for differential association theory. Matsueda reviewed much of the theoretical and empirical research in delinquency and differential association and found solid support for the abstract principles of the theory. Reinarman and Fagan, in a 3-year follow-up study of serious juvenile offenders, found differential association variables—when compared with variables from competing theories—to be the strongest predictors of delinquency in their sample.

Dispute over Sutherland's and subsequent definitions of what constitutes white-collar crime also continues. (See Braithwaite, 1985 for a succinct summary of the arguments.) The term is used here in a general sense, though an important distinction made in the literature which separates crimes into occupational and corporate offenses is employed here (Clinard & Quinney, 1973). Occupational crimes are those committed by the individual for personal gain to the detriment of their employers, while corporate offenses are committed in the interest of the corporation or committed by the corporation as a whole. This conceptual division has been supported by many (Geis, 1982; Kramer, 1984; Grabosky, 1984), and observations in this review will be restricted to crimes of the occupational definition.

The white-collar crime literature shows few attempts, with one or two recent exceptions (see Collins 1991; Welch, 1990), to relate empirically personality traits with the commission of crime. Qualitative approaches to describing the personalities of white-collar offenders have been more common (Cressey, 1953; Franklin, 1979; Zietz, 1981; Benson, 1985; Nettler, 1974). Most of these have been small case studies which have produced interesting and enlightening personality profiles of white-collar criminals, but which have suffered from insufficient numbers of individuals to draw lasting conclusions. In addition, much of what has been said concerning personality and its relation to white-

collar criminality is found in discussions of motivations and the cognitive processes in which offenders engage.

Cressey and the Criminological Tradition

The first truly in-depth study of white-collar criminals was done by Cressey (1953). Using the process of analytic induction in a study of 133 convicted embezzlers, he theorized three conditions necessary for a person to become a violator of trust: (a) a nonsharable financial problem; (b) awareness of how to solve that problem; and (c) the ability to justify the act. The first point has been disputed in the literature by Nettler (1974) and Zietz (1981). Nettler found five Canadian embezzlers who had no apparent nonshareable financial secret, and Zietz found that female embezzlers were more often motivated by a need to meet their responsibilities as wives and mothers than some financial secret problem. The third condition, which related to Cressey's "violator's vocabularies of adjustment" or rationalizations, sparked more interest in the offenders' personal values and moral inhibitions against committing the crime.

Rationalizations and Neutralization Theory

Sykes and Matza (1957), in an attempt to repudiate what they thought was a major error in sociological theories of subcultures and delinquency, developed five common rationalizations for crime that they called techniques of neutralization. The theory of deviant subcultures maintains that group members share a set of conduct norms different from the broader culture of which they are a part. Sykes and Matza's counter-theory to delinquent subculture theory stated that delinquents do not share a separate set of norms contrary to those of society at large, but instead learn justifications for deviance which relieve them of their duty to behave according to norms. The five neutralizations presented were: (a) denial of responsibility (attributing behavior to forces outside one's control); (b) denial of injury (no great harm is committed if no evidence of personal injury exists); (c) denial of the victim (victim is culpable because of actions that put him in harm's way, etc.); (d) condemnation of condemners (motives of police or authorities called into question); and (e) appeal to higher loyalties (responsibility to family, group oaths of honor, etc.). Their assertions, though not supported by any data, generated a great deal of subsequent research.

Stotland (1977) attempted to identify how psychology might contribute to our understanding of white-collar crime by positing some possible psychological factors leading to the commission of white-collar crime. He listed seven positive motivations for white-collar crime and five weak restraints on the commission of such crimes. Not all of the 12 factors would necessarily apply to occupational crimes involving a violation of fidelity to the employer, so the following remarks only relate to those applicable factors.

Money is seen as a primary motivating factor, but Stotland sees theoretical conceptions, such as relative deprivation, insufficient explanation for greed unless the social setting of white-collar crime is accounted for. Threat of loss, in terms of position, prestige, or economic level, is seen as an immediate motive for such offenses as cheating on the side and income tax fraud. The threat of losing one's security clearance because of financial problems comes to mind as a possible motivating factor in espionage. The sense of relative superiority that some perpetrators gain over their victims supposedly motivates many embezzlers and those involved in computer crimes. Stotland notes our society's somewhat perverse admiration for the imagination and skill of some criminal endeavors, and this fascination with technological and duplicitous brilliance is clearly not restricted to white-collar crime. The "sense of mastery, of achievement, of meeting and overcoming challenges" (p. 188) has been cited as a motivating factor where violations and their coverup were extraordinarily complex and intricate.

Group forces as a sociopsychological motivator are discussed in terms of the violation of anti-trust laws and family-based crimes and may seem less relevant. However, research by Wood and Wiskoff (in press) has shown that fully 42% of documented espionage cases involved more that one individual, so this motivation could have some relevance to espionage. Stotland's five weak restraints resemble neutralizations in their functioning; they allow or support decisions to commit crime.

Minor (1981) and Benson (1985) made contributions to the study of neutralizations that put the phenomenon on a more solid theoretical ground. Minor's two-wave study of excuse acceptance and self-reported delinquent behavior among college students revealed that: (a) the process of neutralization may even be necessary for those committed to deviance (contrary to the assumption that neutralization would be unnecessary for these individuals) and; (b) neutralization may not only allow deviance, but may also encourage it. This second point, suggesting a motivational component, is perhaps most important since it suggests an empirical relationship between rationalizations and subsequent behavior for individuals who have not engaged in that behavior before. The optimism of this study, however, is tempered by the observation that previous empirical attempts have not confirmed this relationship (Ball and Lilly, 1971; Ball, 1973, 1977).

In a study of 80 white-collar offenders, Benson (1985) maintains that there are two distinct ways in which offenders deny the criminality of their actions and maintain a non-criminal self-concept. The first represents the use of impression management techniques (Goffman, 1967). These are self-presentational techniques used by the offender to avoid being labelled a criminal. The second method may be viewed as an indicator of the offender's cognitive structure which allows the commission of offenses. This latter view represents the neutralization process as discussed earlier, and Benson remarks on the importance of recognizing and keeping the two techniques of denial separate.

Benson's case studies of anti-trust and tax violators, fraud perpetrators, and embezzlers showed that different neutralizations are characteristic of the different offenses. For example, in the case of embezzlement, which requires deliberate action on the part of the offender and is almost always committed for personal gain, the offense "can be accounted for only by showing that the actor 'was not himself' at the time of the offense or was under such extraordinary circumstances that embezzlement was an understandable response to an unfortunate situation" (p. 596). Benson's results beg the question of whether betrayers of government secrets might also share a characteristic set of neutralizations.

Social Control Theory

Hirschi's (1969) control theory has also been used to explain white-collar criminality. According to Hirschi, individuals are restrained from engaging in delinquent acts by a social bond composed of four interrelated elements: attachments, commitment, involvement, and beliefs. Attachment to family and school, along with the acceptance of conventional goals and norms for behavior, form a fundamental part of this bond. When the elements of this social bond are weak or missing, the individual is more able to engage in antisocial behavior. Though Hirschi's main work was concerned with adolescents, his theory has been applied to other age groups.

In Lasley's (1988) study of 435 executives employed at a multinational automobile manufacturer, social control theory was conceptually developed to allow empirical testing of its tenets as a basis for white-collar offending. Hirschi's four underlying bonds to society were replaced by four theorems concerning the bonding mechanism between the executive and the corporation. The strength of this bond was believed to regulate criminal involvement.

Lasley's data were obtained by administering questionnaires to the company's executives. The questionnaires measured demographic and attitudinal data, contained items relevant to control theory, and included an item which measured self-reported white-collar offenses; principally crimes against the corporation.

Lasley's results suggested that "attachment to corporate actors, i.e., management, other workers, and the corporation itself, has a controlling effect on white-collar offending" (p. 358). He also found that delinquent executives were more often those whose career investments were minimal, who were least involved in their work (had the least amount of free-time from corporate commitments), and those who afforded least legitimacy to corporate regulations. On the basis of this, he concluded that Hirschi's control paradigm was applicable to the corporate setting and that "executives who commit illegal acts do so because they lack appropriate restraints, not because they are compelled by criminogenic forces" (p. 361).

In 1987, Hirschi and Gottfredson published their views on white-collar crime, later integrating them with a more general criminological theory (Gottfredson & Hirschi, 1990). They claim that nearly all deviant behavior, including white-collar crime, is a manifestation of a single underlying trait or construct: a tendency to seek immediate, short-term, self-gratification. "The central elements of our theory of criminality are .. easily recognizable among white-collar criminals. They too are people with low self-control, people inclined to follow momentary impulse without consideration of the long-term costs of such behavior" (pp. 190-191). Having reduced all criminal conduct to a lack of self-control, they proceed to detail the faults and deficiencies in virtually every existing theory of white-collar crime.

Another general theory of crime has recently been presented by Braithwaite (1989). Central to his theory is the concept of *shaming*. Defined as social disapproval, shaming has the "intention or effect of invoking remorse in the person being shamed and/or condemnation by others who become aware of the shaming" (p. 100). Shaming that is "reintegrative" is "followed by efforts to reintegrate the offender back in to the community of law-abiding or respectable citizens" (p. 100). He cites low rates of crime in places such as Japan as evidence of some societies' effective use of shaming as a positive informal social control. Shaming that stigmatizes, however, "makes criminal subcultures more attractive" (p. 102) and may result in higher rates of crime for societies which condemn criminals without making subsequent efforts to reintegrate them into society. Braithwaite provides many crime-related data to support his theory and even provides strategies for testing the theory with data from various sources.

Other Approaches

Some social science researchers have emphasized the assessment of individual and group value systems as prerequisite to an understanding of motivation. Rokeach (1973) argued that values are an enduring dimension of one's personality and provide criteria by which behavior should be evaluated. In a recent study by Welch (1990), the Rokeach Value Survey (RVS) was used to assess the value systems of incarcerated embezzlers and other criminals at a minimum security correctional facility. While the survey results failed to reveal differences between embezzlers and a matched inmate control group from the same institution, significant differences between those institutionalized and the general population did appear. Those incarcerated were more self-centered, and placed "a lower importance on those values which do not have immediate or personal relevance" (p. 159). These findings are in line with the characterization of criminals offered by Gottfredson and Hirschi, and others, though references to other theories of crime causation were absent from the study.

Daly (1989) employed a data set of white-collar defendants' court records used by Wheeler, Weisburd, and Bode (1982) to study the effect gender has on varieties of white-collar crime. As part of Daly's comparison, she summarized the stated motives for

offenders charged with white-collar crimes including embezzlement, which was the only occupational crime represented across five motivational categories. For embezzlement, two striking gender differences found were: (a) the relative importance of family need-based justifications for women versus self-need for men, and (b) the greater degree to which men were influenced by others (coerced, doing a favor, under orders) in the commission of the offense (p. 787). These differences highlight the fact that most research in white-collar crime has focused on the causes of male criminality, and the results may not be applicable to their female counterparts.

An Empirical Psychometric Approach. A recent, and fairly comprehensive attempt to differentiate between white-collar offenders and non-offenders using five self-report instruments has been reported by Collins (1991). The instruments included the CPI, the Biographical Questionnaire (BQ; Owens, 1976; Owens & Schoenfeldt, 1979), the Personnel Decisions Inc. (PDI) Employment Inventory (Paajanen, 1986), a measure of irritability, and a scale developed for the purpose of assessing perceptions of risk and probability of apprehension. The instruments were administered to 365 incarcerated white-collar criminals, whose crimes included fraud, embezzlement, counterfeiting, and other violations, and 344 white-collar employees holding positions of authority.

The 49 scales of the instruments involved were reduced to 15 in one study to form a discriminate function to classify offenders and nonoffenders. This model was named Social Conscientiousness, and measured "dimensions of extraversion, reliability, dependability, risk-taking, narcissism, and ethical honesty that differentially predispose white-collar employees away from or toward criminality" (p. 120). Further analyses resulted in the creation of a six-factor discriminant model which provided the most parsimonious and comprehensive model in terms of predictive ability. The CPI scales Socialization, Responsibility, Tolerance, and Self-Control entered into the model, along with the Performance scale (an integrity/honesty scale) of the PDI, and Extracurricular Activity (a measure of involvement in social activities, or extraversion) from the BQ.

One possible criticism of this type of study is that self-report instruments administered to individuals in prison are not reliable because of the personality changes that the criminal justice process brings about in a person; we are interested in psychological profiles before the fact, not after. Collins anticipates this criticism in responding that white-collar criminals generally adjust well to prison life and show only moderately heightened anxiety and frustration levels.

Future Research in White-Collar Crime

The white-collar crime research area is abundant and varied in nature, and much more could be said about it here. Studies that might advance theorizing in the area of trust betrayal and personality include more empirical works linking scores on established

trait and temperament instruments such as the CPI or MMPI before the fact, with white-collar crime. Given the fact that thousands of individuals in positions of trust have been given these tests in the last 20-30 years, and that many would have since been apprehended in violations of trust, it seems only a matter of time before data of this type will be available. At that time perhaps a firmer idea of the personality traits that have an influence on white-collar deviance will be available.

Employee Theft and Occupational Delinquency

A much more common occupational crime than those dealt with in the previous chapters is employee theft. This phenomenon, along with other associated delinquent behaviors, has been well studied, both in psychological and sociological terms. The similarities between employee theft and espionage have not been firmly established, beyond the fact that espionage generally involves a theft of some kind (e.g., classified documents). Yet Sarbin (1991) and Geis (1991) have likened spies to employee thieves and suggested that their acts may be viewed in a similar light.

Studies of employee theft and occupational delinquency can be divided into two general areas: empirical studies of honesty/integrity evaluation that rely on paper-and-pencil instruments, and applied sociological theories.

Tests of Honesty/Integrity

Origin and Purpose of Tests. Honesty/integrity tests are widely used within the business community in the screening and selection of job applicants for employment. The purpose of these tests is to identify applicants who have relatively high propensities for on-the-job theft and other counterproductive acts. Within the area of honesty/integrity testing there exist two different types of tests that purport to measure such tendencies. These have been referred to as overt integrity tests and personality-based measures of honesty (Sackett, Burris & Callahan, 1989).

Overt integrity tests inquire directly about an applicant's attitudes towards theft, drug use, and other potentially disruptive workplace behavior; as such, they are relatively transparent measures. Studies concerning the validity and reliability of these tests, with the exception of the Reid Report (Reid Psychological Systems, undated) and the London House Personnel Selection Inventory (PSI) (London House, 1980) have not appeared in the psychological literature. Validity studies for these measures have generally been presented by the test developers themselves (Moore & Stewart, 1989; Sackett et al., 1989).

Personality-based measures, such as the Personnel Reaction Blank (PRB) (Gough, 1972), the Employee Reliability Index (Hogan & Hogan, 1989), and the Personnel

Decisions Inc. (PDI) Employment Inventory (Paajanen, 1986), were designed to measure trait and temperament constructs, such as poor impulse control, lack of conscientiousness, irresponsibility, and social immaturity. Items of the personality-based tests bear a strong resemblance to items found in psychological personality tests such as the CPI, MMPI, and 16PF. A great deal of literature, including new reviews (Goldberg, Grenier, Guion, Sechrest & Wing, 1991; Sackett et al., 1989) and a meta-analysis (Ones, Viswesvaran & Schmidt, 1991) have been published recently concerning the predictive and construct validities of both types of tests.

Predictive Validity of Tests. A review of honesty/integrity tests published by the American Psychological Association (APA) task force in 1991 (Goldberg et al.), which focused on overt integrity tests, found that "for those few tests for which validity information is available the preponderance of the evidence is supportive of their predictive validity" (p.26). In addition, two recently published reports have suggested that overt integrity tests are better predictors of both on-the-job theft and counterproductivity (Frost & Rafilson, 1989; Ones et al.,1990), than personality-based tests, contrary to assertions by Sackett et al. (1989) that personality-based measures have an advantage over overt integrity tests in predicting general counterproductivity and delinquency in occupations.

A review by the U. S. Congress' Office of Technology Assessment (1990), however, "finds that the existing research is insufficient as a basis for supporting the assertion that these tests can reliably predict dishonest behavior in the workplace" (p.10). This publication carefully notes that research supports the existence of a positive relationship between honesty test scores and self-admissions of theft, but details the logical and conceptual problems in using self-reported theft as a criterion.

Construct Validity of Tests. Attention has also been directed towards establishing the personality correlates of overt measures of honesty. In one study designed to accomplish this (Kochkin, 1987), 179 airline applicants were administered the 16PF (Cattell, Eber & Tatsouka, 1970) and the Reid Report. When 16PF scale scores for applicants passing the Reid Report were compared with scores of those who failed, significant differences were found. Applicants who passed the Reid Report showed more ego strength, more conscientiousness, were less guilt-prone and apprehensive, were more controlled, less tense, and exhibited less anxiety than those who failed. In addition, applicants failing the Reid Report demonstrated 16PF profiles significantly closer to profiles of five pathological groups than those passing the inventory.

A study by Jones and Terris (1983), in which the 16PF and the PSI honesty scale were administered to 104 convenience store applicants, also found significant correlations between high scores on the honesty measure and the 16PF scales Conscientiousness and Controlled.

16PF scale scores and integrity test correlations using the PSI, the Reid Report, and the Phase II Profile (PIIP; Lousig-Nont, 1982) were reviewed by Moore and Stewart in 1989. They found little similarity across all three honesty tests in terms of the 16PF, the one exception being that all were related to Ego Strength at similar levels. The PSI and Reid report appeared more similar in terms of their underlying constructs, and four 16PF scales with which they were related—Conscientious, Controlled, Assertive, and Tense—were also significantly correlated with self-reported theft. Sackett et al. (1989) have speculated that high correlations between overt integrity tests would be likely, given the similarity in test content that they observed, but Moore and Stewart's central finding seems to be that there exists a general lack of construct validity on the part of overt integrity tests. They point out, for example, that using the PSI as a criterion, 16PF constructs unrelated to Honesty or Integrity explained most of the variance in the test.

Sackett et al. have also speculated that personality-based measures of honesty would be highly intercorrelated since they all share a common conceptual basis, but based on the above observations this statement seems overly confident. Sackett et al. are not as optimistic that overt and personality-based measures will be highly related either. In fact, Frost and Rafilson (1989) found a low correlation (.25) between Gough's PRB (1972) and the overt PSI honesty scale in their study.

Sociological Theories of Employee Theft

Employee theft per se has not been the subject of extensive sociological theorizing. The offense is generally included in broader theories of social deviance, but a few authors have made important contributions towards a sociological understanding of occupational crimes. Many of these attempts to understand employee theft relate to motivations or rationalizations used by offenders.

Major Studies in Employee Theft. In a study of blue-collar theft, Horning (1970) showed that employees in a Midwest electronics assembly plant were supported in their theft of company materials by group norms that defined some plant property as being of uncertain ownership. This category of property generally included small, inexpensive, expendable, and sometimes damaged materials to which most workers felt they were properly entitled. These theft-allowing norms did not support the removal of excessive amounts of property, however, and the norms were found to be heavily influenced by the degree to which the company controlled the flow of such materials.

In two separate studies of hotel and dock pilferage, Mars (1973, 1974) reached similar conclusions, finding a high degree of worker tolerance for theft of some hotel property (but not items belonging to guests) and certain types of ship cargo. In the latter case, cargo that might be seen as open targets would include boxes destined for large businesses or cargo covered by insurance. Mars explained some of this pilferage as the

workers giving themselves morally justified salary increases or attempts to get even with a boss or company that they felt was cheating them. Hollinger and Clark (1983), in a large study of employees in retailing, hospital, and manufacturing, also discovered that employees who felt exploited by their superiors or company were more often involved in theft and other acts by which they could 'get even'. Cressey (1953) found that some embezzlers explained their actions in terms of resentment or revenge against an unfair employer and Geis (1991) relates that employee discontent, which "often seems to have a genuine basis in company disarray or disorganization", is an etiological condition associated with trade secret theft.

Social Control Theory. Tucker (1989) has reviewed much of the employee theft literature and claims that employee theft is often a reaction to what employees consider to be deviant behavior on the part of their employer. As such, he argues that a theory of social control will be more appropriate than any criminological theory in explaining occupational theft. Tucker's views are similar to those expressed by Hollinger (1986) when he states that employee theft is not so much a question of crime in the workplace as it is a managerial problem. Within this social control paradigm, Tucker argues that employees who choose to express grievances by stealing will most often be marginal members of the work force, and employee theft should, therefore, be directly related to the degree of worker marginality. He summarizes, "the low status, temporary, socially isolated employee should be most likely to engage in this activity" (Tucker, 1989, p. 326).

Background Information and Employee Theft. The use of biographical information in predicting delinquency and adjustment problems will be dealt with separately in the next section, but two points regarding the backgrounds of employee thieves have emerged from the sociological literature: (a) employees who have admitted to stealing do not appear to have criminal or otherwise remarkable past histories (Robin, 1969), and (b) economic need, perceived as adequacy of income or financial problems, has not proved a significant predictor of employee theft (Hollinger and Clark, 1983). While the first point has been generally agreed upon, the second point has generated an extensive debate that will probably not be settled soon (U. S. Congress, 1990).

This summary of some of the sociological contributions to employee theft has been narrow in its focus, for much of the literature is most related to issues in the fields of security management and law.

Studies in Deviance and Delinquency

Psychological and sociological studies in delinquency and crime have provided a great deal of evidence concerning the personality traits that contribute to deviance. Of course, many delinquent acts do not involve a violation of trust, and most do not occur in

an occupational setting. However, many theorists in search of a general explanation of criminal behavior would argue that while crime has many different manifestations, the underlying cause is always the same (Gottfredson & Hirschi, 1990; Yochelson & Samenow, 1977). If this is true, then personality traits that have been related to the commission of a variety of crimes should be similar to those that dispose employees to criminal violations of trust. No attempt will be made to explain the major theories of crime causation, but a brief review of some studies that have attempted to measure empirically the relationship between personality traits and criminality will be provided.

Psychometric Approaches in Crime and Delinquency Research

CPI Research. The Socialization (So) scale of the California Psychological Inventory (CPI; Gough, 1956, 1987) has been recognized as "one of the best-validated and most powerful personality scales available" (Megargee, 1972, p. 65). It 'has been consistently successful in assessing socialization and differentiating delinquent from nondelinquent groups" (Brodsky & Smitherman, 1983, p. 33). The So scale is intended to assess a continuum of socialization going from mature, role-compliant behavior at one pole to delinquent, anti-social behavior at the other. Several studies have attempted to understand better the internal structure of tne So scale using factor and cluster analysis techniques. These studies have discovered three or four separate subscales or themes underlying So.

Hogan and Hogan (1989) have built on this So scale structure research and fashioned an employee reliability measure using the Hogan Personality Inventory (HPI) (Hogan, 1986) to represent the underlying constructs of the So scale. Its four main themes are: (a) hostility to rules, (b) thrill-seeking impulsiveness, (c) social insensitivity, and (d) alienation. He found scores on this measure related to a wide array of positive and negative work performance behaviors. Low scores on the measure were correlated with aggressiveness, hostility, self-indulgence, and impulsiveness as measured by CPI and MMPI scales.

Gough and Bradley (in press) review much of the delinquent and criminal behavior studies which used the 1956 version of the CPI and provide empirical support for the revised CPI's validity in predicting delinquency. They found that for the revised CPI, the scales which differentiate best between delinquents and nondelinquents were Socialization, Responsibility, Tolerance, and Vector 3 (Ego Integration). The last scale is one of three vectors that represent a 3-dimensional approach to measuring personality available with the new version of the CPI (Gough, 1987). Scores on two orthogonal factors v.1 (internality) and v.2 (norm-favoring) are used to classify persons into four lifestyles or ways of living (Alpha, Beta, Delta, and Gamma). Alphas are characterized as interpersonally involved and respectful of societal rules. Betas are also rule-abiding, but are more detached and internalized. Gammas tend to enjoy the rewards of interpersonal reaction but remain dubious of society's norms and conventions. Deltas

seek privacy and detachment, freedom from an interpersonal world whose wisdom and governing norms they question.

Vector 3 measures the degree to which individuals integrate their lifestyle, going from self-realization of potential at one extreme to self-defeating and socially unacceptable behavior at the other. Scores on the self-realization measure are coded into seven levels, thus allowing for the classification of persons into 28 cells when using the Type/Level model of the CPI. Gough and Bradley's analysis using this model showed that for Gammas and Deltas (lifestyles involving normative skepticism) higher rates of delinquency were found at lower levels of ego integration.

MMPI Research. The Psychopathic Deviate (Pd) scale of the Minnesota Multiphasic Personality Inventory (MMPI) (Hathaway & McKinley, 1967) has also been touted as one of the best scales for differentiating between offenders and nonoffenders (Waldo & Dinitz, 1967). The MMPI has also "had the widest applications to criminal justice and crime of any psychological test" (Brodsky & Smitherman, 1983, p. 36.) and the Pd scale is considered the best MMPI indicator of sociopathy (Miller, 1976).

A recent attempt to identify a continuous measure of sociopathy (Cooney, Kadden, & Litt, 1990) using the Pd scale, the So scale of the CPI, and two other instruments resulted in a single factor solution, implying that all four scales measured a single underlying construct. The So scale had the highest loading, indicating that it had the strongest degree of association with the sociopathy factor, while more that one third of the Pd scale items were not related to the factor.

Criticism of Psychometric Approaches

Wilson and Herrnstein (1985) have detailed several dimensions of personality which have discriminated between delinquents and nondelinquents in the trait assessment literature. These include assertiveness, fearlessness, aggressiveness, unconventionality, extroversion, poor socialization, hyperactivity, impulsiveness, and other dimensions. The multitude of personality traits by which offenders and nonoffenders have been found to differ is perhaps disconcerting, and can be confusing. Gottfredson and Hirschi (1990), in a criticism of personality trait research, have pointed out that by attaching personality labels to differences in crime rates for delinquents and nondelinquents, researchers have turned perhaps one difference into many. Problems are also compounded because most researchers do not report the content of their measuring instruments. The authors go on to question the value of the CPI's So scale and the Pd of the MMPI, by noting that the Pd scale contains items concerning past criminal behavior and the So scale contains items resembling self-report delinquency measures. They argue that the scales' performance "supports the unremarkable conclusion that measures of delinquency tend to correlate with one another" (p. 110). Their claim, in line with their general theory of crime, is that

"the evidence for personality differences between offenders and nonoffenders *beyond self-control* (italics added) is, at best, unimpressive" (p. 110).

Biodata as a Predictor of Delinquency and Adjustment Problems

Empirical research using biographical data, or biodata, has shown that certain life events can be predictive of delinquency and problems in adjustment. Hough (1988), in a comprehensive review of temperament, biodata, and interest assessment inventory validities, reviewed six studies in which biodata instruments were used to predict various adjustment criteria. Measures included unfavorable discharge from U.S. armed forces, delinquency, and substance abuse. She reported an overall median coefficient of .26. In contrast, she found that two categories of temperament variables (Dependability and Adjustment) were able to predict delinquency, unfavorable military discharge, and substance abuse at somewhat higher levels (.40, .43, and .21, respectively).

Hough comments on the relatively sparse evidence concerning the content and construct validity of biodata measures, and calls for further research. The Background Questionnaire (Owens & Schoenfelt, 1979) represents one of the measures whose development and factor structure are best understood and most thoroughly documented, and Hough identifies this inventory as an example for others to follow. A few recent studies (McDaniel, 1989; Urban & McDaniel, 1989; Russell, Mattson, Devlin, & Atwater, 1990) have described the content of some new and established biographical instruments using factor-analytic techniques. Typical of this approach is McDaniel (1989), who concluded that the application of factor analysis to background investigation data resulted in meaningful background scales which showed adequate reliability and useful levels of criterion-related validity.

Despite recent efforts to improve on the construct validity of biodata instruments, attempts to fashion biodata items into content-homogeneous scales similar to trait and temperament scales face several conceptual problems. One of the principal problems noted by Hough (1988) is that "life history events often involve the confluence of several attributes that are conceptually distinct yet difficult to disentangle" (p. 106). This tendency of biodata items to tap into various temperament domains may make explication of specific constructs very difficult.

Hough has also noted that the line that separates temperament and biodata has become increasingly blurred. This makes it difficult to compare biodata and temperament instrument predictive validities since both measures tend to overlap in item content. It has already been noted that the CPI and MMPI contain items concerning past behavior, and there is also a tendency for biodata instruments to borrow from the temperament domain (Hough, 1988). This is true of the U.S. Army Assessment of Background and Life Experiences (ABLE) (Hough, McGue, Kamp, Houston, & Barge, 1985), a biodata inventory that contains items and content scales similar to those found in

personality inventories. The ABLE represents the result of perhaps the largest effort within DoD to develop a test predictive of various criteria of significance to the military.

The ABLE, 16PF, Marine Corps Special Assignment Battery (SAB; Atwater et al., 1986), Life Experiences Questionnaire (LEQ; Parker, Wiskoff, McDaniel, Zimmerman, & Sherman, 1989), and several other tests were administered simultaneously to over 1300 Marine Security Guard candidates in 1987 and 1988 (Wiskoff, Parker, Sherman, & Zimmerman, 1989). Several of these temperament and biographical instruments contain identically titled constructs, such as Conscientiousness, Cooperativeness, Dominance, Nondelinquency, and Stability. In one set of analyses, Wiskoff et al. compared the relationship these like-named constructs had with a set of school and job performance criteria, including peer and detachment commander ratings of motivation, drinking and liberty behavior, self-discipline, etc. A fairly consistent pattern of relationships with the criteria was found for the groups of scales measuring Conscientiousness, Cooperativeness, Dominance, and Stability. Conscientiousness was clearly "the most consistently powerful predictor across instruments and criterion measures" (p. 77).

An attempt to compare biodata and trait measures of risk-taking was reported by Himelstein and Thorne (1985). They administered Zuckerman's (1979) Sensation Seeking Scale and a purely biographical inventory for measuring risk-taking to 105 students. A moderate, positive and significant correlation between scores on both instruments emerged, but the two tests did not share a significant proportion of common variance. This led researchers to conclude that the two instruments were not measures of the same characteristic or propensity.

Results similar to those obtained by Himelstein and Thorne (1985) might be expected if other comparisons of like-named trait and purely biographical measures were made. A clearer pattern of relationships would be expected between "mixed" biodata inventories and temperament inventories. At this stage, it can be said that biodata constructs, along with single life events, have both demonstrated predictive validities for a variety of delinquent behaviors. In addition, some of these biodata constructs, such as Conscientiousness, have been shown to be similar to trait measures associated with trust betrayal in white-collar settings (p. 22).

Espionage Literature

Very little empirical research has been done in the area of espionage. Most of the literature that has appeared in journals and books has focused on the lives of a few well-known spies. While quite a few excellent biographies, historical accounts, and fictional portrayals of spying in the western hemisphere have appeared over the last half-century, the phenomenon has received very little attention from sociology or criminology, and only somewhat more from psychology. A growing number of empirical and qualitative works concerning espionage have resulted from the establishment of PERSEREC in 1985. In compliance with its mission to investigate how best to safeguard the nation's secrets, PERSEREC has supported scholarly research in this area. Relevant materials have also been published in the security management field, and political scientists and commentators have also had occasion to remark on the phenomenon.

When sifting through the few works that have appeared in the social science literature, a few main points can be identified. First, most discussions have focused on motivation as a critical element that distinguishes between different types of trust violators. Of course, motivation is also a primary consideration in criminological investigations and not surprisingly it serves a similar purpose where espionage is concerned. A wide range of motivations have been proposed, but money, ideology, and revenge have figured prominently in these schema. Second, there is general agreement that in the last few decades financial gain has become the most common and important motivator. While the results of recent analyses conducted on a database of espionage perpetrators support that contention (Wood & Wiskoff, in press), the greed of those convicted of espionage during the 1980s has been widely commented on in a variety of journals as well as in the general media.

Apart from the three areas of scholarship that have been the focus of this review, additional areas were examined. These represent works in disparate fields, such as security management, government-sponsored surveys, social commentary, etc., which will be referred to as general literature for lack of a better term. Characteristic of this general literature is a reliance on anecdotal evidence and common sense to build arguments.

General Literature on Espionage

Herbig (1988) is typical of one school that believes the increase in documented espionage cases during the 1980's can be traced to a general decline in ethics among businessmen, elected officials, and the general public. King (1989), sounding a similar note, believes that public opinion may be the key to preventing or encouraging individual acts of espionage, and he decries the fact that "treason has become somehow more 'forgivable' under a wider set of circumstances than it was earlier" (p. 39). Another trend in the general literature is to view spies as having deep-seated emotional problems or

psychopathic personalities (Brown, 1988; Cooper, 1981), and Brown's review of 92 cases of espionage by Americans against the U. S. is a good example of this perspective.

Brown has identified seven immediate motivational factors to help in profiling these spies, including greed, revenge, ideology, adventure (ego), messiah complex, emotional or romantic involvement, and national pride. Greed is recognized as "the principal overt and recognizable reason for performing espionage" (p. 15). Commenting on a current study being undertaken by the intelligence community, he states that three basic personality types have been drawn to espionage: the "wimps," the "wheeler-dealers," and the "world savers." Wimps suffer from feelings of inadequacy and have problems in coping with their lives, so they become involved in espionage as a vengeful or compensatory act. Wheeler-dealers are more conceited in nature and oriented towards satisfying their desires for the good life. The world savers are those who attempt to correct social wrongs or perceived flaws in our political system by themselves. The most important discovery of his analyses, according to Brown, is "the unforeseen number of people drawn to espionage who had serious flaws of character" (p. 18). He goes on to sketch the development of this "flawed personality" from childhood and comments further on the typical spy personality; antisocial and perhaps bordering on the psychotic. This view is in harmony with much criminological theory of a psychological perspective that regards criminals as sick individuals.

The above work, and others in which traitors are portrayed as disturbed, complex individuals, supports its arguments by referring to episodes in the personal lives of notorious spies such as John Walker or Kim Philby. This representation contrasts sharply with the other popular view that little differentiates spies from common occupational thieves.

Sociological and Criminological Literature

Two important sociological and criminological approaches to espionage have been attempted by Sarbin (1991) and Geis (1991). Sarbin's work is a criminological theory of espionage, which uses motivation to divide offenders into egoistic and ideological subtypes, while Geis' work relates trade secret theft to treason. Geis provides no motivational framework, but in some of the cases he discusses, hopes for financial gain and feelings of ill-will are obvious factors.

Both authors agree that most agents did not obtain their position of trust with the intent to engage in future espionage. Geis shows that this is also true of individuals involved in trade secret theft, while well-known studies in white-collar crime (Sutherland, 1949; Cressey, 1953) have shown this to be the case with other trust violators. Sarbin carries this observation further to explain that the cause of espionage will probably not be found by examining an individual's pre-employment background, since the intent to offend was not present at that time. This view would challenge the usefulness of

biographical data in attempting to identify possible offenders. Both Sarbin and Geis contend that the causes of espionage will more likely be found in the concurrent social contexts and conditions that prevail at the time of the incident.

Both authors agree that, in order for most people to betray the trust of their government, the development of an a priori justification would be essential. Perpetrators, it is argued, would need to neutralize the guilt they would feel by somehow justifying their actions, though persons with a psychopathic personality might find this unnecessary. Sarbin goes beyond the taxonomies offered by neutralization theory and suggests that two critical self-justifications might be found in cultural myths. One involves the Robin Hood legend, in which perpetrators see themselves as stealing from unjust authority and use the proceeds to help innocent victims (including themselves) and redress wrongs. The other involves the myth of territoriality privileges. Sarbin explains how ownership of government property is commonly asserted by individuals who habitually work with equipment such as personal computers, and maintains that a person who works with classified materials might easily employ a territorial conception of ownership in his justifications for theft. In addition, he proposes that the concept of treason has been demoted, and that this new public tolerance for the act leaves individuals less restrained in their ability to justify their misdeeds. This same argument was also supported in the general literature just discussed.

One last point that surfaces in both works relates to the emotional condition and psychological state of mind of the individual at the time of the offense. Geis sees espionage and trade secret theft occurring during periods of "personal or structural discontent and malaise" (p. 28). Sarbin likewise sees a contributing condition "the experience of alienation, of low self-esteem" (p. 30). Brown's (1988) comment that happy people do not commit espionage seems to be supported here.

Scheibe (in press) utilizes the concepts of social control and self-control to describe how these forces might relate to agent recruitment techniques revealed by Levchenko (1988). He notes that a mode of recruitment based on financial rewards will only be effective if the individual is free from abstract ideas such as patriotism or loyalty to principle. This also applies to individuals who are induced into spying by appeals to their ego, wherein spying is portrayed as an exciting adventure and a personal challenge. His point here is that a certain indifference to, or alienation from, society's values must exist in the individuals in order for these motivations to be effective. A successful ideological approach to recruitment of agents requires a transfer of social control from one nation or collectivity to another. In this case, an ideological commitment must already exist or be created, then the locus of control can be transferred. The mode of recruitment involving compromise requires a lack of self-control on the part of the recruited. The conditions for compromising this self-control might ideally involve young men with remote and lonely assignments, such as was the case with Marine Sergeant Lonetree.

Psychological Literature

Psychometric approaches to espionage have focused on developing personality profiles to help in identifying people who might be at risk for betrayal. Both Gough (1991) and Hogan and Jones (in press) have attempted to define the personality characteristics of potential trust betrayers in this manner.

Gough (1991) provides some empirical data to support use of the CPI in identifying individuals with two different personality syndromes that might be predisposing to trust betrayal. He calls the two theoretical models Self-Centered and Self-Indulgent and Irresolute and Suggestible. He provides an experimental design for validation of the syndromes, but only the results for the model Self-Centered and Self-Indulgent (John Walker syndrome) are described in detail.

In a demonstration analysis involving 236 couples and 386 undergraduates, peers and spouses were asked to rate each other using the Adjective Checklist (ACL) (Gough, 1987) and to complete the CPI. A cluster of adjectives was then chosen to approximate an informed description of the personality of John Walker, the infamous spy. Statistical measures of reliability showed this personality syndrome to be in evidence for both the men and women in the sample. Individual CPI scores were then correlated with this John Walker syndrome, and significant negative correlations between this measure and the scales Responsibility, Self-Control, and Achievement via Conformance were found. These findings showed that an individual approaching the John Walker syndrome of self-centeredness and self-indulgence will show low scores on CPI scales measuring facets of self-control and the internalization of societal values.

The CPI lifestyle model of personality structure (Gough, 1987) was also employed in the analyses and it was found that, while Alphas, Betas, and Deltas show little evidence of the syndrome at higher levels of ego integration (V.3), Gammas are still at risk. Gammas at higher levels of integration are thought to be creative and innovative, but may also be clever, rebellious, and adventurous at slightly lower levels.

Montgomery and Brown (1989) provide partial support for Gough's findings in a comparison of CPI scores and scores on Jones' (1988a) Interpersonal Betrayal Scale (IBS). Using 151 psychology undergraduates, they found that low and medium level gammas scored higher than average on their trust betrayal measure, but at the highest levels of ego integration this was not true. Strong negative correlations were found between the Control factor of the CPI (Responsibility, Socialization, Self-Control, Good Impression, Well-Being, and Achievement via Conformity) and the IBS scale.

Hogan and Jones (in press) sort traitors into three ideal types: ideological trust violators, mercenary (quasi-antisocial) trust violators, and resentful trust violators. They feel that each type reflects a specific personality syndrome, which they propose can be identified using psychometric instruments such as the HPI and the Inventory of

Personality Disorders (IPD). Their theory concerning trust betrayal relies heavily on their own theories (Hogan & Jones, 1983) of personality development and deviant behavior, which trace most flaws in personality to early childhood and suggests that everyone may have some type of personality disorder.

According to Hogan and Jones, ideological trust violators do not pose a serious risk to national security because their abrasive style and the intellectual nature of their pursuits will prevent them from rising to positions of trust. Nevertheless, Hogan and Jones' interpretation of Lifton's (1983) data leads them to believe that persons who justify breaking the law in moralistic terms would show high Intellectance and Narcissism, and low Adjustment, Prudence, and Likeability.

Mercenary trust violators are likened to blue-collar workers in high-risk occupations. They support this analogy by pointing out that both groups take large risks for relatively small reward and must demonstrate competence in the performance of their jobs over a period of years. References are made to Hogan and others' work with these occupational groups (law enforcement, bomb disposal, etc.) in which these workers have been found to be bright, self-confident, tough, exhibitionistic, and non-conforming. Within this group, violating regulations and some delinquent behavior is normative, and under certain circumstances this could extend to selling government secrets.

The resentful trust violators are characterized as the most competent, most difficult to detect, and subsequently most dangerous group. On the surface these people will seem well-integrated, poised, and mature, but they will lack personal loyalties, and their cynicism and disillusionment will make them targets for recruitment. Hogan and Jones have identified a syndrome in scoring the HPI that they call the hollow core—people who appear well integrated but are privately grieved—and argue for a relationship between this syndrome and resentful betrayal. They support this argument by citing studies in which the hollow core syndrome was related to the Resentment scale of the IPD, and its content explored. It is suggested that both instruments might prove useful in identifying these resentful betrayers.

Hogan and Jones' propositions are intriguing, and their arguments are generally well supported, but the ease with which they relate observations about bomb disposal experts to assumptions about mercenary trust violators (and other similar comparisons) can be disconcerting.

Seminar on Trust Betrayal

A seminar was held at PERSEREC on July 22-23, 1991, to discuss temperament and personality constructs that might be related to trust betrayal and espionage. The goal of the seminar was to review current thinking concerning the constructs underlying trust betrayal and the feasibility of measuring these constructs. In addition to those

presenting, others in attendance included members of the PERSEREC staff and three members of the intelligence community.

Suzanne Wood (PERSEREC) and Martin Wiskoff (BDM International, Inc.) presented the results of statistical analyses performed on their database of Americans involved in espionage since World War II. The first author presented an overview of most of the material in this report. Theodore Sarbin (PERSEREC) described a criminological approach to trust betrayal, and Gilbert Geis (consultant) compared the theft of trade secrets to espionage. Harrison Gough (consultant) discussed possible applications of the CPI to the problem and summarized a wealth of data concerning CPI scales and a new approach to describing personality with the revised CPI. Robert Hogan (consultant) described the results of a study in which managers who tended to betray the trust of those around them were described with the HPI.

The seminar enhanced our understanding of trust betrayal in several ways. First, it brought to light the results of some very recent, yet to be published research. Second, it provided us with an opportunity to understand how the authors of two different personality instruments, the CPI (Gough) and the HPI (Hogan), might use their inventories to identify individuals at risk for betrayal. Third, it provided for an interaction between researchers and individuals with personnel security responsibilities. Finally, the seminar promoted a dialogue in which ideas to further test hypotheses were generated.

Relatedness of Espionage to Other Offenses

This review has examined a variety of offenses which involve trust betrayal within an organizational context. Arguments have been made to demonstrate the similarities and differences between these offenses. It has been necessary to establish some similarities so that the results of research in areas such as white-collar crime could be made relevant. Because espionage is a highly infrequent event, any empirical investigation of the act may need to rely on a proxy measure to make such research practicable. Therefore, it would be useful for researchers in the field to know what behaviors most closely resemble espionage. In the interests of contributing to this effort, a systematic comparison of espionage, three white-collar crimes, and employee theft will be offered here.

Table 1 compares the similarities and differences between espionage and four other occupational crimes: trade secret theft, embezzlement, insider trading, and employee theft. These offenses were selected because they have been likened to espionage in the literature, and because they meet most of the defining characteristics of trust violations detailed on page 3 of this report. Three groupings—Nature of the Offense, the Organization, and the Offender—are used to make the comparison. Within each of these groupings are specific criteria by which congruences and disparities among

the types of offenses are judged. Some of the criteria represent theoretical measures introduced in discussions in the previous sections, such as Neutralizations, Occupational Norms, and Opportunity Structure. Other criteria are more objective, such as Property Involved, Statutory Nature of Crime, and Formal Security Controls. The authors recognize that this comparison is not exhaustive; arguments could be made for inclusion of additional criteria, and other offenses may also deserve consideration. Notwithstanding these possible shortfalls, this exposition should provide a firmer base on which to make judgments about the similarities between espionage and other offenses. The original idea for this comparison came from an expository analysis authored by Robin (1974), in which dimensions of congruence and disparity between white-collar crime and employee theft were explored. However, the current tables bear little resemblance to Robin's original research.

Trade Secret Theft. A strong argument can be made for trade secret theft, often termed industrial espionage, being an analog of espionage (Geis, 1991). Geis finds an element of disloyalty, along with a change in allegiance, occurring in both crimes. In the industrial espionage cases he has reported, employees have typically stolen information from one employer and then accepted a new position with their former employer's competitor. For the purposes of this comparison, we will restrict our consideration of trade secret theft to domestic cases such as those described by Geis. We recognize that, when theft of trade secrets is sponsored by a foreign government the crime actually constitutes espionage, but we exclude this class of industrial espionage from our definition of trade secret theft.

The pattern of domestic trade secret theft given by Geis does fit the espionage paradigm of the traitor transferring loyalty and information to the other side, but along other dimensions the comparison between the two activities appears to suffer. Consider, for example, aspects such as the statutory nature of the crime, gravity of legal sanctions, and public perceptions of trade secret theft (Table 1). In terms of the legal system and public attitudes, trade secret theft's status as a criminal act is on shaky ground. Those convicted of trade secret theft are generally treated leniently by the justice system and, in fact, little sympathy is commonly shown for the victim organization. The public perception of espionage, and the legal treatment of those convicted, is quite severe by comparison.

In terms of the offender's self-perception and rationalizations for conduct, we also find distinct differences. Trade secret thieves might feel they are justified in their acts by cultural and judicial norms that support open competition, and may feel that trade secret laws which restrict the free flow of marketable information are even "unAmerican." Spies do not have recourse to such rationalizations. The justifications available to them are probably more convoluted and self-deceptive. Only through an extreme twist in logic could spies argue that their actions somehow support American values.

TABLE 1

Congruences and Disparities Between Espionage, Trade Secret Theft, Embezzlement, Insider Trading and Employee Theft

Nature of the Offense	Espionage	Trade Secret Theft	Embezzlement	Insider Trading	Employee Theft
1. Property involved	Classified documents or sensitive information.	Company proprietary information.	Money or other liquid assets.	Generally information.	Property such as merchandise, and money
2. Statutory Nature of Offense	Espionage Act of 1917 clearly details grave nature of the crime and its punishment.[1]	Criminal status ambiguous, some acts not necessarily criminal. Trade secret determinations made on a case-by-case basis.[2]	Felony which can carry stiff sentences.	Not statutorily defined, but grounded in more sweeping fraud statutes, such as SEC 10b-5.[3]	Most offenses committed by dishonest employees are defined as felonies,[4] but most prosecuted as misdemeanors.
3. Gravity of Legal Sanctions	For those convicted and sentenced in last 50 years: 2 executions, some life and multiple life sentences and many long prison terms.[5]	Not often brought to courts, lenient sentences by sympathetic judges.[6]	In two studies of embezzlers convicted in 1971 and 1972, from 22-44% received jail sentences.[7]	For a group of those convicted from 1948-1972, more than half received prison sentences.[8]	Often treated leniently by courts (eg., only 12 of 259 prosecuted received prison sentences).[9]
4. Public Perceptions	Generally regarded a most serious and heinous type of crime, but recent research disputes that.[10]	Public insulated from most events, but general opinion probably reflects amorphous moral component of trade secret theft.[11]	Soundly criminal, considered an extension of common theft.[12] Is considered a more serious offender than burglar, or looting rioter.[13]	Crime not very well understood,[14] but recent evidence suggests ordinary citizens have highly punitive attitudes towards white-collar crime.[15]	Clearly criminal, but public attitudes more lenient. Attitudes toward stealing found to be related to size of victim organization.[16]
5. Prevalence	Very infrequent: least frequent of the offenses listed here.	Opinion ranges from infrequent to frequent.[17]	Relatively infrequent, reportedly half as frequent as murder.[18]	Relatively infrequent, may depend on political factors, business cycle.[19]	Fairly frequent, self-reported theft rates in various sectors of 30% and greater found.[20]
6. Persistence-Repeatedness	Those who successfully committed espionage were typically repeat offenders.[21]	Since employee trade theft often involves a change of employer, repeatedness would not be anticipated.	Repetition of crime often necessary to cover accounting errors	Can easily become routine part of conducting business.[22]	Probably most of those apprehended have engaged in theft several times.
7. Victim	United States.	The target organization.	Principally the organization for which employee works.[23]	Stockholders, financial markets, society at large.[24]	Principally the organization involved.[25]
8. Effect on Social Institutions and Organizations	Large-scale social, political and military effects.	May affect only a particular organization, or undermine trust among corporations.[26] Larger consequences are possible.	Creates distrust, may lower social morale when individuals affected.	Upsets market ideologies, discouraging outsider trading, creates distrust and lowers social morale.[27]	Fairly local, but obligates employers to invest in theft prevention insurance.

TABLE 1 (Continued)

Congruences and Disparities Between Espionage, Trade Secret Theft, Embezzlement, Insider Trading and Employee Theft

The Organization	Espionage	Trade Secret Theft	Embezzlement	Insider Trading	Employee Theft
1. Opportunity Structure	Infrequent to continual access to secrets, but difficulty in removing materials. Finding a market might only be *difficult for volunteer spies.*	Access to secrets and product information may be continual, but marketing a problem. May necessitate a change in employer.	Generally frequent opportunities, can be integrated into ordinary occupational routines.[28]	"Opportunities to violate trust coexist with legitimate business practice."[29]	Opportunity coexists with normal business; constant opportunity.
2. Occupational Norms	Highly opposed, most egregious of crimes; anathema to purposes of organization.	Probably some tolerance for act among fellow workers, especially regarding proprietary nature of individual contributions.	Little or no support from coworkers, as evidence shows that offenders are especially concerned with concealing their crimes from all.[30]	Support may be mixed, since innovations have increased role ambiguity in investment banking and encouraged entrepreneurial "behavior on the edge."[31]	Group norms may encourage some types of employee theft.[32]
3. Formal Security Controls	Theoretically very strict, but reports of laxness have accompanied many accounts of espionage.	Very strict, industrial secrets probably *guarded* as closely as nation's.	Numerous controls strictly enforced by accounting procedures.	New roles, technology, information networks, and complexity of markets have undermined traditional formal controls.[33]	Often minimal controls, but considerable variation *across occupations.*

TABLE 1 (Continued)

Congruences and Disparities Between Espionage, Trade Secret Theft, Embezzlement, Insider Trading and Employee Theft

The Offender	Espionage	Trade Secret Theft	Embezzlement	Insider Trading	Employee Theft
1. Social Status	Lower to mid-ranking, generally middle-class.	Middle- to upper-class, most probably college-educated.	"Higher social status than among other criminals."[34] But generally lower socio-economic status than other white-collar criminals.[35]	Middle- to upper-class, over 40% college graduates, many owners or officers.[36]	"Consists almost entirely of middle-class individuals."[37] Persons may have little status, tenure, and education.
2. Criminal Background or Record	In order to obtain clearances, most could not have serious past offenses.	Unknown, probably most had no criminal background.	Presumably, most would have clean records, but one study claims that 24% have had prior convictions.[38]	Most would presumably have clean records.	Most do not have criminal, or an otherwise notable, past history.[39] Only 2% of the employee thieves in one study had prior criminal records.[40]
3. Expertise or Skill Needed to Commit Offense	Considerable expertise required to maintain a spying career.	May or may not require a great deal of expertise, depending on how theft is carried out.	Views range from "Highly complex and technically skilled tasks"[41] to least complex white-collar crime.	Skills beyond those necessary for conducting normal business probably unnecessary.	Generally, little or no expertise is required.[42]
4. Offender Self-perception	Despite rationalizations, probably can't deny the traitor label.	Probably don't consider themselves criminals, despite realization that they are involved in trade secret theft.	May admit criminality of acts, but won't accept criminal label.[43] Don't acknowledge themselves as embezzlers until their rationalizations crumble.[44]	The offender does not view himself as a criminal or "genuine deviant."[45] May acknowledge himself to be an illegal inside trader.	Employee thieves do not consider themselves criminals,[46] until store managers and police "force them to abandon their illusions."[47]
5. Neutralizations (Rationalizations for behavior)	Robin Hood legend (stealing from unjust authority) and myth of territoriality privileges.[48]	Appeal to a higher law, "just trying to get ahead."[49]	Borrowing, extension of ownership, unusual situation, lack of control,[50] extraordinary circumstances, "the actor was not himself."[51]	Condemnation of condemner, denial of the victim and harm, appeal to higher laws, ignorance of law, defense of necessity.[52]	Territorial notions of ownership,[53] retribution for injustices against workers, impersonality of large corporations, a justified raise in salary.[54]
6. Attitudes Toward Law	Given the ostensibly conventional lifestyles of most, it would appear that their attitudes towards common law were conventional.	Most likely supportive of law in general, but feel trade secret laws lack validity.	Most probably respectful of society's laws in general, along with business laws.	May be resentful and contemptuous of government securities policy and regulatory personnel,[55] though most respectful of society's laws.	Most "have adopted and support conventional legal structures."[56]

An important distinction between the two offenses can also be made in terms of the occupational norms concerning the behaviors. We are not aware of any tolerance for traitorous behavior by co-workers in high security occupations. Within private industry, however, individuals who have contributed to the development of important commercial products often consider themselves the rightful proprietors of the ideas behind such products. They feel, along with their colleagues, that they are entitled to take those ideas with them when changing employers.

Embezzlement. Support for embezzlement as an analog of espionage can also be found in the literature (Sarbin, 1991), though an explicit case has not yet been made. As in the case of trade secret theft, embezzlement is a highly disloyal and injurious act to the employer, but no other party directs the acts and claims the loyalty of the embezzler. Yet in the nature of the crime, we see considerable similarity between espionage and embezzlement. Both are fairly repugnant crimes by society's standards and both are treated harshly by the justice system, though it appears that insider traders are more often sent to prison than embezzlers.

In terms of the offender we find more similarities between the two crimes. Embezzlers are unable to appeal to societal norms for justification of their conduct, though initially they may convince themselves that they are only borrowing funds that they eventually be repaid. When caught and faced with their crimes, however, most can only rely on the appeal that, during the course of the crime they were somehow not themselves, or were faced with such desperate circumstances that no alternative action existed. Spies face a similar situation; they may for a time be able to find excuses for their conduct by relying on cultural myths, but when faced with their acts they will find no excuse that resonates with societal support. In terms of the organizational environment, we find that the colleagues of embezzlers, like workers in high security occupations, have little tolerance for those who betray their employers.

Insider Trading. Insider trading has yet to be identified as a correlate of espionage, but it is clearly a violation of trust committed in the course of an occupation (Reichman, 1989). It has been included here as an example of a typical white-collar crime. Insider trading may resemble espionage most closely in that the abuse of trust extends beyond the organization and can undermine trust in much larger arenas such as the financial markets. The effects of espionage can extend into the political arena and upset international alliances, foment distrust in foreign relations and even contribute to a lack of confidence in our own government.

As seen in Table 1, insider trading, like trade secret theft, is not as well understood or vociferously condemned an offense as embezzlement or espionage. The enforcement of insider trading regulations may, in fact, follow shifts in political fortunes and business cycles. However, recent evidence has shown that the public is adopting much more punitive attitudes towards white-collar criminals. The recent penalties given

to some celebrity inside traders reflect a continuing toughening of penalties for this offense.

Insider trading, along with embezzlement and trade secret theft, appears to differ from espionage somewhat in the social background of the offenders. Spies, especially in the military, seem to come from a lower socioeconomic rung and are less educated on average than white-collar criminals and trade secret thieves.

Insider traders, like trade secret offenders, can appeal to higher laws of free commerce and calls for regulation through competition in reconciling their acts. Along with anti-trust violators, insider traders have been shown to be some of the least remorseful and repentant of white-collar offenders (Benson, 1985; Reichman, 1989), presumably because they feel they have done nothing wrong. Most spies (with the exception of psychopaths and the ideologically motivated) probably feel some guilt concerning their acts.

Investment banking differs markedly from the other occupations discussed in terms of the work environment. Traders often work in organizations with little hierarchical structure or oversight, employing the latest technological advances in their trading activities and communications (Reichman, 1989). As such, their occupational environments are supportive of innovation, entrepreneurship, and a fair amount of self-serving behavior.

Employee Theft. Many characteristics of employee theft make it unlike the offenses discussed so far. It is a fairly common phenomenon; perpetrators are often given light sentences, if charged at all; society is fairly tolerant of much employee theft; and the effects of specific acts of employee theft are quite local. Nonetheless, no ambiguity exists concerning the criminal nature of the act, as is the case with trade secret theft and insider trading.

In terms of the individuals involved, employee thieves may resemble spies more closely in terms of their middle-class backgrounds. But while many employee thieves occupy marginal positions within their organizations, the spies frequently enjoy more status in their roles and often occupy career positions. The range of rationalizations available to the employee for theft is wide. Some of these were mentioned previously in sociological explanations of employee theft. The marginal employee works in an environment that may be supportive of some types of theft, and safeguards are often lacking to prevent the employee from stealing at will.

To summarize, Table 1 shows that of the four offenses considered, trade secret theft and embezzlement most resemble espionage using the criteria listed. On the basis of a cell-by-cell comparison, embezzlement emerges as a slightly closer match, although this is not a definitive finding. Table 1 is best used as a vehicle for generating further hypotheses and research.

Temperament Constructs Related to Espionage and Other Offenses

This review has attempted to identify the personality constructs that researchers have related to trust betrayal for several specific behaviors, including espionage. A more complete and systematic comparison of these personality components will enable us to summarize what can be learned from much of the literature.

By comparing temperament constructs across a range of behaviors, it may be possible to identify the personality components commonly associated with the trust betrayal phenomenon. This approach may also allow us to compare the personality traits proposed for each offense by various researchers. In addition, personality traits may be compared across similar behaviors and within motivational groupings. Motivation will be used as a framework in this series of comparisons since most of the espionage research reviewed has argued that different personality syndromes will be associated with each motivation posited.

Trait and Temperament Constructs Related to Espionage

Table 2 presents the individual personality traits that have been tentatively identified by researchers as predisposing to espionage. Three motivational groupings are presented, representing financial gain, ideological causes, and a mixed category representing feelings of resentment and ill-will. It should be noted that some of the character dimensions listed in Table 2 do not necessarily represent measurable trait constructs per se, but are personal qualities that the authors have mentioned in various contexts. Authors such as Geis (1991), Sarbin (1991), Scheibe (1991), and others have remarked on the futility of searching for a personality configuration predictive of spying, but have nevertheless offered some personality characterizations of spies.

For spies whose primary motivation is pecuniary, three traits have been mentioned by more than one author as being contributory: (a) lack of self-control as defined by the CPI, (b) thrill or sensation-seeking (risk-taking, a component of the HPI Prudence scale would be included), and (c) a sense of alienation. Self-control and thrill-seeking are both associated here with specific psychometric instruments, and the measurement of both traits is supported by a considerable body of research.

There has been less theoretical and empirical research concerning the other two motivational groupings. The opinions concerning ideologically motivated trust violators are diverse and without a unifying construct. The mechanism by which loyalty is transferred from one entity to another has been explored from very different perspectives, but only Hogan and Jones (1991) offer a personality profile.

TABLE 2

Personality Traits Identified with Espionage by Primary Motivation

Motivation = Money

Authors(s)	Instrument(s)	Specific Trait(s)
Harrison G. Gough (1991)	California Psychological Inventory (CPI) constructs and Type/Level groupings	Scales: Self-Control -[a], Responsibility -, Achievement Via Conformance -, Type/Level: Gammas at middle levels of V.3
Robert Hogan and Warren H. Jones (1991)	Hogan Personality Inventory (HPI) and Inventory of Personality Disorders (IPD) constructs	HPI: Intellectance +[b], Sociability +, Adjustment +, Prudence -, Likeability -, IPD: Antisocial +, Paranoia +
Theodore R. Sarbin (1991)	No instrument specified	sensation-seeking; self-reliant and autonomous (self-narrative theory); the experience of alienation or low self-esteem a contributing condition
Karl E. Scheibe (1991)	Passing reference made to CPI	boredom, freedom from conscience, alienation from ordinary patriotic sentiments, disaffected, lack of self-control, thrill-seeking. CPI: Self-Control -
Gerald B. Brown (1987)	No instrument specified	vanity, serious character flaws, deep-seated problems dating back to early life

Motivation = Ideology

Author(s)	Character Dimension	Specific Trait(s)
Robert Hogan, Warren H. Jones (1991)	Constructs from HPI and IPD	HPI: Intellectance +, Sociability +, Adjustment -, Prudence -, Likeability - IPD: Narcissism +, Histrionic +
Karl E. Scheibe (1991)	No instrument specified	lack of social attachment, transfer of social control
Gerald B. Brown (1987)	No instrument specified	discontentment, possibly serious flaws in character

Motivation = Resentment/Revenge/Disgruntlement

Author(s)	Character Dimension	Specific Trait(s)
Robert Hogan and Warren H. Jones (1991)	Constructs from HPI and IPD	HPI: Anxiety +, No Sense of Identity +, Poor Attachment +, Social Anxiety -, Depression -, Somatic Complaint - IPD: Resentment cluster + (mixture of Paranoid and Passive Aggressive)
Gerald B. Brown (1987)	No instrument specified	Initial character flaws accompanied by disillusionment, frustration, bitterness, resentment, and a state of hatred
Gilbert Geis (1991)	No instrument specified	"surfacing of personal or structural discontent and malaise", a sense of grievance or discontent

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[a] Dash indicates negative relationship between construct and espionage

[b] Plus sign indicates positive relationship between construct and espionage.

There is more agreement concerning the personality of trust violators motivated by resentment and revenge. Not surprisingly, the word *resentment* occurs twice here, and Hogan and Jones (1991) contend that it is a state of mind that can be measured. Of course, this assertion begs the question that if a test to measure resentment were administered to a person before any resentment-provoking incident occurred, would that individual score high on the resentment scale. A number of synonymous terms such as *bitterness*, *frustration*, and *discontent* are also used to portray the resentful trust violator. These terms do well in describing a grieved and vengeful employee, but the question remains as to which individuals in a high security occupation would turn to espionage to relieve their anger. On the other hand, such persons may well be capable of other destructive acts.

Trait and Temperament Constructs Related to Other Offenses

Table 3 presents a review of offenses other than espionage. Since pecuniary gain is assumed to be the primary motivator behind most property theft, money is also considered the principal motivation for Table 3.

White-Collar Crimes. Lack of self-control, or a tendency to seek self-gratification without concern for others, is proposed as a predisposing personal trait for white-collar trust violators. Gottfredson and Hirschi argue that it is the only trait that distinguishes between law-breakers and the law-abiding populace. The scales that Collins (1991) found which discriminate best between white-collar criminals and white-collar workers were subsumed under the term *Social Conscientiousness*.

Employee Theft and Delinquency. A large number of psychometric investigations have been conducted in the fields of employee theft and delinquency, and interesting patterns of constructs emerge when studies in both areas are considered together. Some might object to grouping together studies of employee integrity and delinquency, but it should be noted that many integrity tests currently purport to predict global performance and forms of counterproductivity other than theft (Sackett et al., 1989), and the term *delinquency*, while more general, certainly includes offenses such as employee theft.

Table 3 shows that lack of self-control is noted in three studies as a predictor of delinquency and unreliable employee behavior. In addition, irresponsibility and lack of conscientiousness appear to be important aspects of personality that contribute to the commission of a wide variety of offenses. Elevated tension and anxiety are also listed as contributors to the employee theft and delinquency criteria. The inclusion of these additional constructs indicates that we have moved away from trust betrayal to a much broader criterion.

TABLE 3

Personality Traits Identified with Other Offenses

White-Collar Offenses

Authors(s)	Specific Offenses	Instrument(s)	Specific Trait(s)
Judy M. Collins (1991)	White-collar crimes	Constructs from CPI, Personnel Decisions Inc. (PDI) employment inventory and the Biographical Questionnaire (BQ)	CPI: Socialization -[a], Responsibility -, Tolerance -, Self-Control - PDI: Performance - BQ: Extracurricular Activity +[b]
Michael Welch (1990)	Embezzlement	The Rokeach Values Survey	Self-Centered +
Michael R. Gottfredson, Travis Hirschi (1990)	All offenses, including white-collar crimes	No instrument specified	low self-control

Occupational Deviance and Delinquency

Authors(s)	Specific Offenses	Instrument(s)	Specific Trait(s)
Alan G. Frost, Fred M. Rafilson (1989)	Employee Unreliability (theft, counterproductivity, drug abuse)	Constructs of Personnel R ction Blank (PRB) and Personn Selection Inventory (PSI)	PRB: Dependability -, Conscientiousness -, impulse control -
Joyce Hogan, Robert Hogan (1989)	Employee unreliability (on-the-job delinquency)	Constructs of HPI Employee Reliability Index	School success -, Avoids trouble -, Experience seeking +, Enjoys crowds +, Exhibitionistic +, Easy to live with -, Sense of attachment -, Depressed +, Guilt +
Sergei Kochkin (1987)	Employee theft	16PF interpretation of Reid Report test constructs	Ego Strength -, Conscientiousness -, Controlled -, Apprehensive +, Tense +, Anxiety +
Robert W. Moore, Robert M. Stewart (1989)	Employee theft	16PF interpretation of PSI, Reid Report and PIIP constructs	Conscientiousness -, Controlled -, Tough-Minded -, Assertive +, Tense +
Harrison G. Gough, Pamela Bradley (1991)	Delinquency	CPI constructs and lifestyle types	Socialization -, Responsibility -, Tolerance -, Ego Integration - Lifestyle: Gammas and Deltas at low levels of Ego Integration
Robert R. Knapp (1963)	Delinquency (Navy brig confinees)	CPI and Survey of Interpersonal Values (SIV) constructs	CPI: Socialization - SIV: Composite -

[a] Dash indicates negative relationship between construct and offense.

[b] Plus sign indicates positive relationship between construct and offense.

In comparing the constructs posited for the delinquency criterion with those proposed for measuring tendencies to trust betrayal (espionage, white-collar crime), a few observations can be made. We noted earlier that most trust violators would have to establish themselves as dependable, conscientious workers over a period of time before receiving a clearance, or being given a position of trust, so most of these individuals could not be grossly irresponsible or unreliable in their behavior. By the same token, exceedingly anxious or tense individuals would not be seen as emotionally fit for occupations requiring high-level clearances or access to large amounts of money. A total lack of self-control might also prevent a person from obtaining a position of trust, but an overwhelming concern with self-gratification, accompanied by a tendency to follow momentary impulses, even if noticeable, would probably not prevent anyone from rising to a position of trust.

Findings

This study has reviewed literature in the fields of psychology, criminology, and sociology, along with expert judgments, to identify the temperament constructs that could be related to trust betrayal. In doing so, it has also identified a potential set of existing instruments for measuring these constructs.

In accomplishing the above tasks, consideration was given to scholarly research in diverse areas. Review of empirical research in interpersonal trust showed that gaming approaches favored by behaviorists would probably fail as models for trust betrayal. Research in interpersonal betrayal from a trait perspective looked more promising in its potential applications. Sociological and organizational research in the trust literature revealed a wide variety of conceptualizations of trust. All of these emphasize the importance of environmental factors and, while worthy of consideration, contribute little to a discussion of the personality variables associated with trusting behavior. The moral stages approach was found vulnerable to a wide range of criticism and, in our judgment, provides an oversimplified view of human cognitive processes.

Empirical criminological approaches to white-collar crime were found useful in their detailing of motivational and cognitive influences on offending. None of the current theories of deviance was found entirely suitable as a theoretical framework for discussion of espionage. However, since none of these modern criminological theories has been applied to espionage in an empirical research setting, it is difficult to speculate on their appropriateness. The many empirical studies and reviews of integrity testing provided detailed accounts of the constructs related to employee delinquency. Biodata's ability to tap some of these constructs using life history events was also briefly noted.

Some popular and common-sense notions concerning espionage found in a review of general literature sources were summarized. Three sociologically oriented works which emphasized the rationalization processes of offenders and endorsed a situational approach to espionage were summarized. Two exploratory trait approaches using established instruments were also described, and a systematic comparison between espionage and four other occupational crimes was offered. Finally, a graphic was presented to summarize our findings concerning the specific topic of the review, temperament constructs related to trust betrayal.

In general, empirical psychological research based on personality theory using psychometric techniques has contributed most to our understanding of trust betrayal. Solid contributions have also emerged from other fields, such as organizational theory, criminology, and white-collar crime research. Together, these insights provide us with the ability to list a number of findings that may advance inquiries into the phenomenon of trust betrayal.

1. The betrayal of a trust conferred by an organization and the betrayal of trust in personal relationships are two distinct entities. Nevertheless, some researchers have argued that individuals who are willing to betray their country would also be prone to engage in betrayal at an interpersonal level (between friends, family, colleagues, etc.). Currently, little empirical evidence exists to support the link between interpersonal betrayal and espionage. Therefore, a better understanding of espionage would probably result from research in acts of trust betrayal between individuals and organizations, rather than acts of interpersonal betrayal.

2. Virtually every serious, scholarly attempt to explore espionage has used motivation as a primary vehicle to distinguish among types of spies. Three motivations have been most commonly posited: money, resentment, and ideology. Each motivational type is described by a number of personality traits that distinguish it from the others. Money is considered the primary motivating force behind most recent espionage. Resentment and revenge have become more important in recent years, while the importance of ideology is thought to be waning.

3. Many researchers from a sociological and criminological background view the development of a priori justifications for the commission of trust violations, including espionage, as a critical part of the cognitive process. Most evidence for neutralizations comes from case studies, and attempts to empirically investigate these processes have encountered various problems. Given the present level of understanding of the rationalization process, neutralization theory may prove more suited as a vehicle for understanding motivation, rather than be employed in empirical designs to explain trust betrayal.

4. Situational variables have been shown to have a large, measurable effect on the incidence of crime in the workplace. For example, studies in employee theft from an organizational perspective have demonstrated the influence that informal occupational norms have on individual tendencies to steal. In some empirical studies these norms have been evaluated in the form of questionnaires and their effect on workplace crime has been documented. Recent research (Wood & Wiskoff, in press) on Americans committing espionage on the U. S. since World War II has documented that a contributing factor in some spying is associated with job and situational variables.

5. Scores on integrity tests (both overt and personality-based) have demonstrated the ability to identify individuals prone to acts of delinquency in an occupational setting. The constructs underlying "integrity" are not well understood and have generally not been validated, but the predictive power of

some constructs argues for their inclusion in any set of measures to predict delinquency on the job.

6. A number of temperament constructs have been proposed by experts as predisposing individuals to engage in espionage. Reasonable consensus has been reached concerning three constructs thought to exercise some influence. They are: (a) lack of self-control, or self-centeredness, (b) sensation-seeking or risk-taking, and (c) a sense of alienation or not belonging. The first two constructs have been identified with CPI scales of the same name.

7. A considerable amount of empirical research has shown the CPI to be one of the best instruments available for the prediction of deviant behavior. The Socialization scale of the CPI, and to a lesser degree the scales labeled Responsibility, Self-Control, Tolerance, and Achievement Via Conformance, have demonstrated repeatedly the ability to discriminate between offenders and non-offenders in a variety of settings. In addition, the new Type/Level interpretation of CPI item scores provides a multidimensional approach to describing certain poorly integrated personality types with a greater tendency for delinquent behavior.

8. Espionage has much in common with white-collar crimes such as embezzlement and insider trading, and other occupational crimes such as trade secret theft. Across a wide range of comparison criteria, espionage appears to resemble embezzlement most closely. Because of these resemblances, white-collar crime may be used to better understand espionage.

9. A recent study (Collins, 1991) using temperament, biodata, and integrity instruments proved extremely successful in discriminating between trust violators (white-collar criminals) and a control group (white-collar employees). The constructs identified provide an excellent foundation for confirmatory analyses with other groups of trust violators. They also provide a base upon which profiles of possible trust violators may be constructed.

Future Research

The present report has attempted to further our knowledge concerning the betrayal of trust with specific reference to the constructs that underlie this behavior and how they may be measured. We have posited white-collar crime, in particular embezzlement, as being close in many respects to the crime of espionage. In a recent landmark study, Collins (1991) has shown that there are measurable constructs underlying white-collar crime derived from three different types of instruments: personality, biodata and honesty/integrity. Other studies, such as those by Gough (1991), similarly have shown that it is possible to identify individuals with a higher propensity for criminal behavior.

Another line of work has pursued the personality traits underlying the different motivations for committing espionage. Gough (1991) has proposed theoretical models of two kinds of people at risk for betrayal: (a) self-centered and self-indulgent; and (b) irresolute and suggestible. He has provided indicative adjectives and preliminary data to support the model. Independently, a current government study of spies has identified definable personality traits that can be profiled for two distinct types of spies. The description of the personality traits is remarkably similar in the above two studies, an encouraging finding, given that it resulted from work that originated from two completely different perspectives.

The next stage of research should attempt to validate the promising constructs in personnel security settings. There are two appropriate approaches: (a) conduct longitudinal analyses on personality and temperament data and biodata already collected; and (b) initiate the administration of promising instruments in operational settings as a means of collecting experimental data.

Conduct Analyses on Existing Data

It has been seen that of the personality and temperament instruments, the CPI has the firmest theoretical and empirical base in assessing delinquent, criminal and white-collar crime behavior. The CPI has been administered for more than 35 years: therefore, a rich source of potential data for longitudinal analyses already exists. There are two types of analyses that should be conducted with the CPI. The first is to evaluate the most promising scales, such as Socialization, Responsibility and Tolerance. The second would be to investigate further the CPI Type/Level 3-dimensional model of personality structure that was described earlier. The following are three examples of potential CPI studies:

1. As described earlier, Collins (1991) found scales of the CPI to be an essential component of a discriminant model that was able to differentiate between offenders and non-offenders. There are additional analyses of her database

that would be valuable. Within her white-collar criminal population there was a subpopulation of embezzlers that could be further investigated since they represent the group closest to our espionage population of interest. It would be valuable to study whether it is possible to differentiate psychometrically among types of white-collar criminals. A second analysis would be to apply the CPI 3-dimensional model, both to the total population of white-collar criminals and to the embezzler subset.

2. The Department of Justice is planning to initiate a 25-year follow-up of approximately 3,500 law violators who were tested with the CPI when they were about 21 to 25 years of age. Some of these individuals may fit our criterion for white-collar criminals. Close attention should be given to this study and contact initiated with the Department of Justice to express interest in participating as appropriate. It may be possible to make specific suggestions for studies to be conducted that would be of value in better understanding the dynamics of personality change in a population of relevance to espionage.

3. The CPI, along with other screening instruments, has been administered over a period of years to applicants at one or more intelligence/security agencies. If available, it would be desirable to conduct analyses of these data to investigate the trends over time in CPI scores and to assess their relationship to any evidence of negative behavior at the agency or agencies involved.

Collect Data on Personnel in Military Agencies

The second approach would involve collecting data on personnel already in military agencies. It is proposed that the following instruments found to be of value by Collins (1991) be considered for an experimental battery of tests: (a) California Psychological Inventory, (b) PDI Employment Inventory, and (c) Biographical Questionnaire. It is desirable, but not necessary, to administer the entire battery within a military agency; the setting would determine the feasibility of what instruments should be given. Following are some potential populations to whom the instrument(s) could be administered:

1. Two different categories of personnel in intelligence/security agencies. The first are applicants for employment. Data obtained on applicants would permit normative statistics to be developed concerning traits within a broad sample of individuals. This would allow for the development of a database of information for longitudinal analysis in conjunction with other predictor data routinely obtained by the agencies.

A second population of interest is those who already hold security clearances. It would be desirable to administer the Battery to a sample of incumbents as a means of creating a database on those holding sensitive clearances. One possibility would be to collect this information as part of the periodic reinvestigation procedures.

2. Enlisted applicants to the military who are being considered for occupations requiring TS clearance or SCI access. Each of the Military Services conducts screening of these personnel prior to submitting the required paperwork for conduct of a Background Investigation by the Defense Investigative Service. Screening decisions are made on these applicants by the Services concerning whether they should be further processed for sensitive occupations or considered for other military jobs. Data have already been analyzed by PERSEREC on the relationship of an Army screening questionnaire to this processing decision and to subsequent events such as whether individuals become issue cases during the Background Investigation or whether they are discharged from service for reasons of unsuitability. Obtaining personality data on this population would enable the development of linkages among screening instruments, adjudication criteria, clearance decisions, and the constructs measured by the Battery.

3. Military personnel who have exhibited negative behavior while in service. One potential population is offenders who are in military prisons. Another is those being discharged from service for reasons of unsuitability. While individuals in these groups do not represent white-collar populations, the study would permit analysis of the Battery constructs on a group of individuals who have committed violations of military and civil regulations.

Endnotes

1. United States (1917). Sixty-Fifth Congress, Session I, Chapter 29.

2. Ogata, R. C. (1984). Understanding corporate deviance: The case of industrial espionage. *Journal of Security Administration*, *6*(2), 21. Ogata states, "No agreement exists as to what a bonafide trade secret is; what is and what is not considered to be a trade secret is determined largely on a case-by case basis. For most cases, the determinants of a trade secret are evaluated according to the Restatement of the Law of Torts (1939), p. 21."

3. Reichman, N. (1989). Breaking confidences: Organizational influences on insider trading. *The Sociological Quarterly*, *30*(2), 188.

4. Robin, G. D. (1974, July). White-collar crime and employee theft. *Journal of Research on Crime and Delinquency*, *20*(3), 255.

5. Wood, S., & Wiskoff, M.F. (in press). *Americans who spied against their country since World War II.* Monterey, CA: Defense Personnel Security Research and Education Center.

6. Geis, G. (1991, July). *Trade secret theft as an analog to treason.* Paper presented at Temperament Constructs Related to Betrayal of Trust Seminar, Defense Personnel Security Research and Education Center, Monterey, CA.

7. Conklin, J. E. (1977). *"Illegal but not criminal" business crime in America* (pp. 101-102). Englewood Cliffs, NJ: Prentice-Hall. The studies show that bank embezzlers were sentenced to prison less often than postal embezzlers. Tax violators were sent to prison 35% of the time, while the rate for those convicted of securities violations varied from 16-100%.

8. Shapiro, S. P. (1990). Collaring the crime, not the criminal: Reconsidering the concept of white-collar crime. *American Sociological Review, 55*, 361. Shapiro found in a study of 2,101 individuals and organizations investigated from 1948-1972 for stock swindling, that for 48% no action was taken, civil or administrative action was taken for 31%, and criminal action was taken against 20%. Of the last group, 60% received prison sentences. Conklin (*ibid*, p. 101) cites a study using 1971 data which showed that only 12% of those convicted of securities fraud were given prison sentences, and the average sentence was less than one year.

9. Robin, G. D. (1967, Summer). The corporate and judicial disposition of employee thieves. *Wisconsin Law Review*, 688-90.

10. Sarbin, T. R. (1991). *Domestic espionage: A criminological theory*. Paper presented at Temperament Constructs Related to Betrayal of Trust Seminar, Defense Personnel Security Research and Education Center, Monterey, CA.

11. Geis, G. (1991, July). *Trade secret theft as an analog to treason*. Paper presented at Temperament Constructs Related to Betrayal of Trust Seminar, Defense Personnel Security Research and Education Center, Monterey, CA.

12. Benson, M. L. (1985). Denying the guilty mind: Accounting for involvement in a white-collar crime. *Criminology, 23*(4), 595.

13. Conklin, J. E. (1977). *"Illegal but not criminal" business crime in America* (p. 31). Englewood Cliffs, NJ: Prentice-Hall. On the basis of recommended sentences for offenders, "an embezzler is considered by the American public to be a less serious offender than an armed robber, a murderer, or a seller of narcotics to minors, but a more serious offender than a burglar, a prostitute, or a rioter who engages in looting." Conklin also cites a survey of recommended criminal penalties by undergraduates in which embezzlement was "regarded as seriously as bank robbery" (p.21).

14. Conklin, J. E. (1977). *"Illegal but not criminal" business crime in America* (p. 18). Englewood Cliffs, NJ: Prentice-Hall. Stock fraud and manipulation are mentioned as "complex undertakings beyond the understanding of the average investor."

15. Braithwaite, J. (1985). White collar crime. *Annual Review of Sociology, 11*, 13.

16. Smigel, E. O. (1970). Public attitudes toward stealing as related to the size of the victim organization. In E. O. Smigel, & L. H. Ross (Eds.), *Crimes against bureaucracy* (pp. 15-28). New York: Van-Nostrand Reinhold. Conklin notes that the public may view employee theft as violations of occupational regulations, "rather than as attacks upon basic societal values." On the other, he notes that it "involves both an attack upon the sanctity of private property *and* a violation of trust by the employee." Conklin, J. E. (1977). *"Illegal but not criminal" business crime in America* (p. 27). Englewood Cliffs, NJ: Prentice-Hall.

17. Ogata, R. C. (1984). Understanding corporate deviance: The case of industrial espionage. *Journal of Security Administration, 6*(2), 18.

18. Gottfredson, M. R., & Hirschi, T. (1990). *A general theory of crime* (p. 193). Stanford, CA: Stanford University Press. From arrest rates for murder (1983) and embezzlement (1984). Data were apparently obtained from *Uniform Crime Reports* (U.S. Department of Justice).

19. Benson, M. L. (1985). Denying the guilty mind: Accounting for involvement in white-collar crime. *Criminology, 23*(4), 602. Benson cites evidence that prosecution of antitrust offenses "waxes and wanes with changes in presidential administrations and with the political fortunes of big business." It is reasonable that such cycles also occur with insider trading prosecutions.

20. Hollinger, R. C., & Clark, J. P. (1982). Formal and informal social controls of employee deviance. *The Sociological Quarterly, 23*, 337. Steffensmeier notes that "estimates of employee theft range from 10 to 75%, depending on the source of the estimate." but that the most frequently reported numbers are in the 30% range. Steffensmeier, D. (1989). On the causes of "white-collar' crime: An assessment of Hirschi and Gottfredson's claims. *Criminology, 27*, 354.

21. Wood, S., & Wiskoff, M. W. (in press). *Americans who spied against their country since World War II.* Monterey, CA: Defense Personnel Security Research and Education Center.

22. Reichman, N. (1989). Breaking confidences: Organizational influences on insider trading. *The Sociological Quarterly, 30*(2), 197-198.

23. Wheeler, S., Weisburd, D., Waring, E., & Bode, N. (1988). White collar crimes and criminals. *American Criminal Law Review, 25*, p. 344. Of the 201 cases of bank embezzlement reported by Wheeler et al., in none of the cases were there more than 100 victims, even though 10% of the cases involved more than $100,000 and 6.5% of the cases were statewide or wider in scope.

24. Wheeler, S., Weisburd, D., Waring, E., & Bode, N. (1988). White collar crimes and criminals. *American Criminal Law Review, 25*, p. 344. Of the 1601 cases of securities fraud reported by Wheeler et al., 62% involved more than 100 victims, 87% involved more than $100,000, and 81% were statewide or wider in scope.

25. Robin, G. R. (1974). White-collar crime and employee theft. *Journal of Research on Crime and Delinquency, 20*(3), 258.

26. Ogata, R. C. (1984). Understanding corporate deviance: The case of industrial espionage. *Journal of Security Administration, 6*(2), 19.

27. Reichman, N. (1989). Breaking confidences: Organizational influences on insider trading. *The Sociological Quarterly*, *30*(2), 188.

28. Benson, M. L. (1985). Denying the guilty mind: Accounting for involvement in white-collar crime. *Criminology*, *23*(4) 596.

29. Reichman, N. (1989). Breaking confidences: Organizational influences on insider trading. *The Sociological Quarterly*, *30*(2), 186.

30. Gottfredson, M. R., & Hirschi, T. (1990). *A general theory of crime* (p. 193). Stanford, CA: Stanford University Press.

31. Reichman, N. (1989). Breaking confidences: Organizational influences on insider trading. *The Sociological Quarterly*, *30*(2), 197.

32. Horning, D. M. (1970). Blue-collar theft: Conceptions of property, attitudes toward pilfering, and work group norms in a modern industrial plant. In E. O. Smigel & L. H. Ross (Eds.), *Crimes against bureaucracy* (pp. 46-64). New York: Van-Nostrand Reinhold, and Conklin, J. E. (1977). *"Illegal but not criminal" business crime in America* (p. 79). Englewood Cliffs, NJ: Prentice-Hall. Conklin notes that "This is especially true if such norms exist in the absence of attachment to externally imposed norms about the legal means to achieve success."

33. Reichman, N. (1989). Breaking confidences: Organizational influences on insider trading. *The Sociological Quarterly*, *30*(2), 199.

34. Cressey, D. R. (1953). *Other people's money: A study in the social psychology of embezzlement* (p. 145). Glencoe, IL: Free Press.

35. Wheeler, S., Weisburd, D., Waring, E., & Bode, N. (1988). White collar crimes and criminals. *American Criminal Law Review*, *25*, p. 345. Wheeler et al. found that for a group of 201 bank embezzlers 13% were college graduates, and nearly 40% were steadily employed.

36. Wheeler, S., Weisburd, D., Waring, E., & Bode, N. (1988). White collar crimes and criminals. *American Criminal Law Review*, *25*, p. 345. Though not all of those convicted of securities frauds listed would be inside traders, the group is probably representative.

37. Robin, G. R. (1974). White-collar crime and employee theft. *Journal of Research on Crime and Delinquency*, *20*(3), 255.

38. Wheeler, S., Weisburd, D., Waring, E., & Bode, N. (1988). White collar crimes and criminals. *American Criminal Law Review*, *25*, p. 345.

39. Robin, G. R. (1969). Employees as offenders. *Journal of Research on Crime and Delinquency, 6,* 17-33.

40. Robin, G. D. (1967, Summer). The corporate and judicial disposition of employee thieves. *Wisconsin Law Review,* 698.

41. Gibbons, D. C., & Garrity, D. L. (1962, March). Definition and analysis of certain criminal types. *Journal of Criminal Law, Criminology and Police Science,* 28-31. However, in arranging a hierarchy of white collar-crimes in terms of offense complexity, Wheeler et al. put bank embezzlement at the bottom. They note that fewer than half the embezzlement cases are patterned. Wheeler, S., Weisburd, D., Waring, E., & Bode, N. (1988). White collar crimes and criminals. *American Criminal Law Review, 25,* p. 331.

42. Robin, G. R. (1974). White-collar crime and employee theft. *Journal of Research on Crime and Delinquency, 20*(3), 259.

43. Benson, M. L. (1985). Denying the guilty mind: Accounting for involvement in white-collar crime. *Criminology, 23*(4) 595.

44. Cressey, D. R. (1953). *Other people's money: A study in the social psychology of embezzlement* (pp. 121-122). Glencoe, IL: Free Press.

45. Aubert, V. (1952, November). White collar crime and social structure. *American Journal of Sociology,* 220.

46. Robin, G. D. (undated). *Employees as offenders: A sociological analysis of occupational crimes* (pp. 89-90). Unpublished Ph.D. dissertation, Department of Sociology, University of Pennsylvania, Philadelphia.

47. Conklin, J. E. (1977). *"Illegal but not criminal" crime in America* (p. 92). Englewood Cliffs, NJ: Prentice-Hall.

48. Sarbin, T. R. (1991). *Domestic espionage: A criminological theory.* Paper presented at Temperament Constructs Related to Betrayal of Trust Seminar. Monterey, CA: The Defense Personnel Security Research and Education Center.

49. Benson, M. L. (1985). Denying the guilty mind: Accounting for involvement in white-collar crime. *Criminology, 23*(4), 588.

50. Cressey, D. R. (1953). *Other people's money: A study in the social psychology of embezzlement* (pp. 93-136). Glencoe, IL: Free Press. Cressey referred to

these and other rationalizations for embezzlement as violators' vocabularies of adjustment. Zietz, however, found that none of the female embezzlers in her sample used the "borrowing" rationale, but rather was motivated by the immediate needs of spouses and family. Zietz, D. (1981). *Women who embezzle or defraud: A study of convicted felons* (p. 58). New York: Praeger.

51. Benson, M. L. (1985). Denying the guilty mind: Accounting for involvement in white-collar crime. *Criminology, 23*(4), 596. Since embezzlers generally admit their guilt, their crime "can only be accounted for by showing that the actor 'was not himself' at the time of the offense or was under such extraordinary circumstances that embezzlement was an understandable response to an unfortunate situation."

52. Benson, M. L. (1985). Denying the guilty mind: Accounting for involvement in white-collar crime. *Criminology, 23*(4), 588-605. These neutralizations are mentioned in relation to antitrust violations and fraud, including SEC violations. Condemnation of condemner might be explained by the offender's belief that the specific industry is the actual target of the regulators and judicial system and not the individual, but it is the individual accused. Ignorance of the law, including inattention to detail, may be intentional so that intent on the part of the offender cannot be established. Denial of the victim and harm may be used because no individual victim can be identified in these offenses. Appeals to the higher laws of free enterprise is a plausible excuse when "governmental values run counter to more basic societal values and goals" (p. 588). Reichman lists several cultural justifications also related to neutralization theory. Reichman, N. (1989). Breaking confidences: Organizational influences on insider trading. *The Sociological Quarterly, 30,* 187.

53. Horning, D. M. (1970). Blue-collar theft: Conceptions of property, attitudes toward pilfering, and work group norms in a modern industrial plant. In E. O. Smigel & L. H. Ross (Eds.), *Crimes against bureaucracy*. New York: Van-Nostrand Reinhold.

54. Conklin, J. E. (1977). *"Illegal but not criminal" business crime in America* (p. 89). Englewood Cliffs, NJ: Prentice-Hall.

55. Sutherland, E. H. (1949). *White Collar Crime* (p. 264). New York: Holt, Rinehart and Winston.

56. Robin, G. R. (1974). White-collar crime and employee theft. *Journal of Research on Crime and Delinquency, 20*(3), 259.

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